
Respiratory Protection Program

706.1 PURPOSE AND SCOPE

The Elk Grove Police Department is committed to preventing injury and illness in the workplace and makes every effort to protect our employees from harmful airborne substances. The Department has determined that employees may be exposed to certain airborne hazards including riot control agents and other hazardous substances during routine and emergency situations. The purpose of this program is to ensure that police employees are protected from exposure to respiratory hazards. This general order establishes a respiratory protection program for police personnel. This program will comply with the California Code of Regulations, Title 8, Section 5144, Respiratory Protection.

706.1.1 APPLICATION

This program applies to all police personnel who are required to wear respirators during normal work operations and during emergency situations. Participation in this program is mandatory for all reserve officers, officers, sergeants, and lieutenants. Employees participating in the respiratory protection program do so at no cost. The expense associated with the training, medical evaluations and respiratory protection equipment will be borne by the City of Elk Grove.

706.1.2 POLICY

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

706.2 RESPONSIBILITIES

(a) Program Administrator: The Program Administrator is responsible for administering the respiratory protection program. The Safety Officer is the Program Administrator for the City of Elk Grove. Duties of the Program Administrator include:

1. Evaluate respiratory hazards;
2. Arrange for annual qualitative fit testing using an accepted OSHA protocol;
3. Administer the medical surveillance program;
4. Maintain records required by the program;
5. Evaluate the program;
6. Update the written program, as needed;

(b) Police Department Coordinator: The Operations Division Commander will assign one member of the Department to act as the Police Department's respiratory protection program coordinator. Duties of the Program Coordinator include:

1. Purchase, maintain and inventory of respirators and filter canisters;

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2. Coordinate with the Program Administrator on how to address respiratory hazards or other concerns regarding the program;
 3. Ensure employees attend the required training;
 4. Identify work areas and tasks that require workers to wear respirators;
 5. Select proper respiratory protection based on specific or identified hazard;
 6. Ensure that employees under their supervision (including new hires) have received the appropriate training, and fit testing;
 7. Ensure the availability of appropriate respirators and accessories;
 8. Awareness of tasks requiring the use of respiratory protection;
 9. Enforce the proper use of respiratory protection when necessary;
 10. Continually monitor work areas to identify respiratory hazards;
 11. Ensure annual medical exams for the following classifications of employees:
 - i. Employee wears the mask on more than two occasions/events in a year
 - ii. Exposure level in excess of the Permissible Exposure Limit
 - iii. Employee is a member of an emergency response team (i.e. Clan Lab clean up)
- (c) Employees: It is the responsibility of the employee to have an awareness of the respiratory protection requirements for his or her work areas in accordance with the City's respiratory protection program. Employees are responsible for wearing the appropriate respiratory equipment according to instructions. Employees are also responsible to observe all factors and conditions required to demonstrate a good respirator fit and adequate face seal. Employees must also:
1. Care for and maintain respiratory protection equipment as instructed, and store it in a clean and sanitary location;
 2. Inform their supervisors if the respirator no longer fits and to request a new one that fits properly. A fit check and fit test shall be performed with the issuing of a new mask;
 3. Inform their supervisor of the Program Administrator of any respiratory hazards that they feel are not adequately addressed in the workplace and of any concerns that they have regarding the program.

706.3 WORKPLACE EXPOSURE ASSESSMENT

The type of airborne hazards presented to police personnel occurs in situations where engineering controls are not feasible or adequate. Control of airborne hazards through employee's use of respirators will provide emergency protection against occasional and relatively brief exposures. The results of the current hazard evaluation have identified the following potential exposure risks:

- (a) Potential risks of exposure to chemical agents during enforcement and training. Chemical agents can take several forms and be deployed in a variety of delivery systems. The gas can

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be delivered by shotgun grenades and via a 37mm launcher. The deployment of CN and CS gas is restricted to members of the Special Weapons and Tactics Team (SWAT); however, it is recognized that CN and CS gas can spread and affect other people in the area. Properly worn full face air purifying respirators are effective for protecting the eyes, nose, mouth, and throat from CN and CS gas.

(b) Exposure to OC spray during enforcement and training. The Department utilizes OC spray in MK-4 canisters for use by individual officers, and large area foggers are used by SWAT for crowd control. Properly worn full face air purifying respirators are effective for protecting the eyes, nose, mouth, and throat from OC spray but a mask is not required when training with OC.

(c) Potential risk of exposure to tuberculosis (TB) or other Airborne Transmitted Diseases (ATD's), while interacting with individuals likely to be infected. The use of a one half face respirator has been shown to be effective in protecting the wearer from TB.

706.4 RESPIRATORY EQUIPMENT, USE AND SELECTION

There are two different pieces of equipment that fall under the category of respirators that Elk Grove Police Department field employees shall be provided:

(a) The first is a full-face air purifying respirator, commonly known as a gas mask, which will be the MSA Advantage 1000 or similar respirator. This full-face respirator is to be used to protect the employee from chemical agents such as CN and CS. The employee is advised that the full-face respirator is National Institute for Occupational Safety and Health (NIOSH) certified to protect against CN and CS, and is effective but not certified in protecting against OC, Sarin, Hydrogen Cyanide, and other chemicals. The respirator is not intended to protect against all Weapons of Mass Destruction type agents and does not supply its own oxygen.

(b) The second type of respirator supplied to field employees is the one half mask N95 respirator. The respirator closely resembles a mesh surgical mask or dust mask and is intended to protect the employee against Tuberculosis (TB). The one half mask N95 respirator will be the 3M respirator or similar product. The one half mask respirator is not designed to protect the wearer against chemical agents but rather is useful in protecting the wearer from contracting TB from a TB victim. These one half mask respirators shall be kept in the patrol and CSO vehicle crash bags. A field employee may retain extra one half facemasks if they desire. The N95 filters exhaled air outside the mask so logically the mask would not be appropriate to place on a TB victim. The mask is instead only for use by the employee.

706.4.1 REQUIREMENTS

Reserves, officers, sergeants, and lieutenants will be issued air-purifying respirators. These employees are required to have their respirators available in the field when working uniformed assignments. One half face TB respirators will be kept in vehicle crash bags.

Reserves, officers, detectives, sergeants, and lieutenants should make every effort to wear their respirators in situations involving potential exposures.

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It is recognized that in emergency situations, employees may be unable to obtain and don a respirator prior to deploying agents such as CN, CS and OC. Employees must take appropriate action to avoid exposure. Respirators must be obtained and worn as soon as practical.

All respirators must be certified by NIOSH and shall be used in accordance with the terms of that certification. All filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced while it is in use. Air-purifying respirators should not be used under the following conditions:

- (a) When contaminants have poor warning properties; that is, when the contaminant cannot be recognized by taste, smell or irritation at or below the permissible exposure limits;
- (b) In oxygen-deficient atmospheres (below 19.5%);
- (c) In atmospheres Immediately Dangerous to Life or Health (IDLH); and
- (d) Atmospheres in which short exposures would cause death, injury or delayed reaction;
- (e) When there is a respirator selection question remember to refer to the Material Safety Data Sheet for the appropriate personal protective equipment.

706.5 USER SEAL CHECK

All employees shall conduct user seal checks each time they wear their respirator. Employees shall use the positive and negative pressure check specified in this policy. The individual who uses a tight-fitting respirator is to perform a user seal 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 this policy, or the respirator manufacturer's recommended user seal check method shall be used. User seal checks are not substitutes for qualitative or quantitative fit tests.

706.5.1 FACE PIECE POSITIVE PRESSURE CHECK

Close off the exhalation valve and exhale gently into the face piece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the face piece without any evidence of outward leakage or air at the seal. For most respirators this method of leak testing requires the wearer to first remove the exhalation valve cover before closing off the exhalation valve and then carefully replacing it after the test.

706.5.2 FACE PIECE NEGATIVE PRESSURE CHECK

Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s) or by replacing the filter seal(s), inhale gently so that the face piece collapses slightly, and hold the breath for ten seconds. The design of the inlet opening of some cartridges cannot be effectively covered with the palm of the hand. The test can be performed by covering the inlet opening of the cartridge with a thin latex or nitrile glove. If the face piece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

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706.5.3 MANUFACTURERS RECOMMENDED USER SEAL CHECK

The respirator manufacturer's recommended procedures for performing a user seal check may be used instead of the positive and/or negative pressure check procedures provided.

706.6 RESPIRATOR CLEANING PROCEDURES

These procedures are provided for employer/employee use when cleaning respirators. They are general in nature and the employer/employee as an alternative may use the cleaning recommendations provided by the manufacturer of the respirators. The Department must ensure that the respirator is properly cleaned and disinfected in a manner that prevents damage to the respirator and does not cause harm to the user.

706.6.1 CLEANING PROCEDURES

Remove filters, cartridges, or canisters. Disassemble face-pieces by removing speaking diaphragms, demand and pressure-demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts. Wash components in warm (43 degrees C [110 degree 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 the removal of dirt. Rinse components thoroughly in clean, warm (43 degree C [110 degree F] maximum), preferably running water. Drain.

706.6.2 DISENFECTING

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 43 degrees C (110 degree F);
- (b) Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodine/100 cc of 45% alcohol) to one liter of water at 43 degrees C (110 degrees F);
- (c) Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.

706.6.3 COMPLETION

Rinse components thoroughly in clean, warm (43 degrees C [110 degrees F] maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on face pieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed. Components should be hand-dried with a clean lint-free cloth or air-dried. Reassemble face piece, replace the filters, cartridges and canisters when necessary. Test the respirator to ensure that all components work properly.

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706.7 FILTER REPLACEMENT SCHEDULE

Filters will be stored in their sealed pouches until such time as an employee needs to deploy a respirator. Opened filters that have not been exposed to a hazardous substance will be replaced after 40 hours use. Opened filters that have been exposed, or that may have been exposed to a hazardous substance, will be replaced after 10 hours of use. SWAT officers who expose their filters to live chemical agents at yearly trainings shall discard the exposed filter after training and be issued a sealed new one. Unopened filters will be replaced every two years.

706.8 MEDICAL AND FIT TESTING

Employees who are either required to wear respirators, or who choose to wear a tight fitting respirator voluntarily, must pass a medical exam before being permitted to wear a respirator on the job. POST pre-employment exam covering respiratory protection will satisfy this requirement. Those employees will also be required to undergo qualitative TBN95 mask fit testing and a quantitative fit test for the full face mask to ensure a proper seal against the face. Medical and fit tests will be conducted in accordance with the City's policy. Respirators cannot be worn when conditions prevent a good seal between the face of the wearer and the seal area of the respirator. Facial hair, sideburns, moustaches, long hairlines, or bands can pass between the sealing surface of the face piece and the face thus interfering with the function of the respirator valve(s) causing leakage of air or preventing air from entering the face piece on demand. Moustaches, small sideburns, hair length, and "Van Dyke" type beards are acceptable if they are worn in a manner so as not to come between the skin and the sealing surfaces of the respirator or interfere with valves inside the face piece. All affected employees must comply with these regulations. No exceptions will be made.

706.9 EMPLOYEE SAFETY

All employees will be permitted to leave the respirator use area to wash their face and respirator face piece as necessary to prevent irritation associated with respirator use; if they detect odors due to vapor or gas breakthrough; changes in breathing resistance; or leakage of the face piece. They may also leave to replace the respirator, cartridges, or canister elements.