Respiratory Protection Program

708.1 PURPOSE AND SCOPE

The University of Maryland, Baltimore Police Department is committed to preventing injury and illness in the workplace and makes every effort to protect its 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 document establishes a Respiratory Protection Program for police personnel as specified in the Personal Protective Equipment Policy 705.This program will comply with United States Department of Labor OSHA and Maryland Occupational Safety and Health (MOSH) requirements (29 CFR 1910.134; COMAR 09.12.31.9999).

708.2 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.

708.3 APPLICATION

This program applies to all police personnel who are required to wear a respirator during the performance of their duties.Participation in this program is mandatory for sworn members holding the rank of lieutenant and below. 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 University of Maryland, Baltimore.

708.4 RESPONSIBILITIES

708.4.1 PROGRAM ADMINISTRATOR RESPONSIBILITIES

The Chief of Police will assign a member to act as the Department's Respiratory Protection Program administrator.The Program Administrator is responsible for administering the respiratory protection program.Duties of the Program Administrator include:

(a) Arrange for annual fit testing via Environmental Health & Safety (EHS) using OSHA protocol.

(b) Coordinate the medical questionnaires when required by EHS.

(c) Coordinate the maintenance of records required by the program.Medical records associated with the Respiratory Protection Program are maintained by EHS.

(d) Update the Respiratory Protection Program, as needed.

(e) Purchase, maintain and inventory of respirators and filter canisters.

(f) Coordinate with EHS on how to address respiratory hazards or other concerns regarding the program.

(g) Select proper respiratory protection based on specific or identified hazard.

(h) Ensure that employees receive the appropriate training, and fit testing.

(i) Ensure the availability of appropriate respirators and accessories.

708.4.2 EMPLOYEE RESPONSIBILITIES

It is the responsibility of the employee to have an awareness of the respiratory protection requirements.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:

(a) Care for and maintain respiratory protection equipment as instructed and store it in a clean and sanitary location.

(b) 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.

(c) Inform their supervisor of any respiratory hazards that they feel are not adequately addressed in the workplace and of any concerns that they have regarding the program.

708.5 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.Chemical agents can be delivered by aerosol canister, incendiary grenade, and by 37mm or 40mm launcher.Although the UMBPD does not utilize CN or CS gas, CN and CS gas might by deployed by other agencies working with or near UMBPD personnel.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.Other agencies, working with or near UMBPD personnel, may use large area foggers are used 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 infectious diseases and other Airborne Transmitted Diseases (ATD's), while interacting with individuals likely to be infected.The use of a N95 type respirator has been shown to be effective in protecting the wearer from infectious diseases.

708.6 RESPIRATORY EQUIPMENT, USE AND SELECTION

There are two different pieces of equipment that fall under the category of respirators that members of the University of Maryland, Baltimore Police Department may be provided:

(a) The first is a full-face air purifying respirator, commonly known as a gas mask, which will be the MSA Millennium 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 N95 respirator closely resembles a mesh surgical mask or dust mask and is intended to protect the employee against infectious diseases.The N95 respirator will be the 3M respirator or similar product.The N95 respirator is not designed to protect the wearer against chemical agents but rather is useful in protecting the wearer from contracting infectious diseases.

708.7 REQUIREMENTS

Sworn members holding the rank of lieutenant and below will be issued MSA Millennium air-purifying respirators.These air-purifying respirators will be stored as determined by the Operations Commander.

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.

708.8 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.

708.8.1 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.

708.8.2 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), 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.

708.8.3 MANUFACTURE 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.

708.9 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 cleaned and disinfected in a manner that prevents damage to the respirator and does not cause harm to the user.

708.9.1 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 if necessary.Rinse components thoroughly in clean, warm (43 degree C [110-degree F] maximum), preferably running water.Drain.

708.9.2 DISINFECTING
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.

708.9.3 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.

708.10 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.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 upon reaching the manufacturer’s expiration date.

708.11 MEDICAL AND FIT TESTING

Employees who are either required to wear respirators, must meet the requirements set forth in the medical questionnaire administered by the Environmental Health and Safety fit test technician.

Those employees may also be required to undergo qualitative TBN95 mask fit testing.Medical and fit tests will be conducted Environmental Health and Safety in accordance OSHA standards.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. Facial hair 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.