

**SAN MATEO COUNTY
RESPIRATORY
PROTECTION PLAN**

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SAN MATEO COUNTY

RESPIRATORY PROTECTION PLAN

I. POLICY

The California Occupational Safety and Health Administration, CAL/OSHA Title 8, Section 5144 and Section 5199 require that San Mateo County develop a respiratory protection plan to maintain a safe and healthy work environment. The plan has been developed to provide guidelines to employees to minimize the risk of occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, gases, smokes, sprays, or aerosols. This respiratory protection plan focuses on source control, control of the environment, safe work practice habits and respiratory protection devices. When effective engineering or administrative controls are not feasible or practical, or in emergency situations, the use of personal respiratory equipment may be necessary to protect the health of the employee. An effective respiratory protection program is essential to assure that the personnel using such equipment are adequately protected.

II. OBJECTIVE

The purpose of this plan is to provide guidelines for employees to minimize their risks to occupational diseases by breathing contaminated air. Effective exposure control is a multi-step procedure involving changes in work practices, early recognition of symptoms followed by prompt medical evaluation utilizing procedures such as atmospheric isolation antibiotic treatment of confirmed suspect cases and the design and implementation of

engineering controls. The program is also designed to protect employees by establishing accepted practices for respirator use, providing guidelines for training and respirator selection, storage and proper use and care of respirators.

III. SCOPE

This program applies to all San Mateo County departments which have personnel who may be exposed to individuals with aerosol transmissible diseases or occupational environments where there is the potential to be exposed to harmful dusts, fog, mists, gases vapors, sprays or smoke. For TB surveillance and exposures please refer to the San Mateo County TB Exposure Plan, (Attachment A) This respiratory protection plan also includes all County facilities that are determined by the Center for Disease Control, (CDC), California Department of Health Services, (CDHS) or the local health officer to be at elevated risk of infection with aerosol transmissible pathogens. All County facilities that conduct evaluation, diagnoses treatment, transport housing or management of persons requiring airborne infection isolation are also included. This program includes all employees who need to wear a respirator to perform assigned duties. It is inclusive of all full-time, part time or per diem County employees who have been identified as being at risk for exposure. A list of individual County of San Mateo departments, job classifications and high hazard work operations covered under this plan can be found in (Attachment B)

IV. RESPONSIBILITY

The County Manager is assigned responsibility and authority to fully carry out the requirements of the Respiratory Protection Plan. In instances where there is/are documentable failures to adhere to the requirements of this plan where patients, staff or the facility are at immediate risk, he is granted authority to cause the immediate abatement of that activity through the suspension of those unhealthful procedures tasks or operations. All such instances will be brought to the attention of the County Manager. All other instances of inadequate compliance will be addressed through the respective chain of command. Individual departments will be responsible for overview and

management of their respiratory programs. This responsibility belongs to the department head and his designated representative in providing a safe and healthy work environment. Each department is responsible for developing their own respiratory plan based on the hazards identified in their own department.

A. Department Supervisors

Department Supervisors are responsible for ensuring that the respiratory protection program is implemented in their area. The supervisor shall assess the level of staff familiarity with this plan and assist with obtaining staff compliance on an on-going basis.

Duties of the supervisor include:

1. Ensuring that employees under their supervision (including new hires) receive appropriate training, fit testing and annual medical evaluation.
2. Ensuring the availability of appropriate respirators and accessories.
3. Being aware of tasks requiring the use of respiratory protection.
4. Enforcing the proper use of respiratory protection when necessary.
5. Ensuring that respirators are properly cleaned, maintained, and stored according to this program
6. Ensuring that respirators fit well and do not cause discomfort.
7. Continually monitoring work areas and operations to identify respiratory hazards.
8. Departments will be responsible for reporting exposures to Risk Management for follow-up as needed, and to ensure that appropriate control measures are in place after an exposure incident.

B. Employees

Each employee is responsible for wearing their respirator when and where required and in the manner in which they are trained. Employees must also:

1. Use the respiratory protection in accordance with the manufacturers instructions and the training received.
2. Care for and maintain their respirators as instructed, guard them against damage, and store them in a clean, sanitary location.
3. Immediately report any defects in the respiratory protection equipment and whenever there is a respirator malfunction.
4. Promptly report to the supervisor any symptoms of illness that may be

- related to respirator usage or exposure to hazardous atmospheres.
5. Report any health concerns related to respirator use or changes in health status to their supervisor.
 6. Inform their supervisor of any respiratory hazards that they feel are not adequately addressed in the workplace.

C. Risk Management

The Risk Management Division of Human Resources will be responsible for administering the medical surveillance program for employees ensuring post exposure follow-up and maintenance of required medical records.

D. US HealthWorks

US HealthWorks will be responsible for the treatment and follow-up of all exposure incidents. Treatment will be provided in a manner that ensures the confidentiality of employees and will be provided in accordance to current CDC and CDPH recommendations.

V. EXPOSURE CONTROL PLAN

A. Definitions

1. **Aerosol transmissible disease (ATD)** means an epidemiologically significant disease that is transmitted via droplet or airborne route.
2. **Aerosol transmissible pathogen (ATP)** means an epidemiologically significant pathogen that is transmitted via droplet or airborne route.
3. **Airborne infection isolation (AII)** means infection control procedures that are designed to reduce the risk of transmission of airborne infectious pathogens. Airborne infection isolation procedures apply to patients known or suspected to be infected with epidemiologically important pathogens that can be transmitted by the airborne route.
4. **Airborne infection isolation room** or area means a room, area,

booth, tent, or other enclosure that is maintained at negative pressure to adjacent areas in order to control the spread of airborne infectious pathogens and that meet the requirements of Title 24, Part 4 for isolation rooms.

5. **Airborne infectious disease (AID) or pathogen (AIP)** means either (1) an aerosol transmissible disease or pathogen transmitted through dissemination of airborne droplets or droplet nuclei or dust particles containing the infectious agent, for which AII is recommended by the CDC or CDHS or (2) a novel or unknown disease or pathogen caused by a novel or unknown ATP.
6. **Assigned protection factor (APF)** is the minimum anticipated protection provided by a properly functioning respirator or class of respirators to a given percentage of properly fitted and trained users. The APF for a respirator is assigned by NIOSH and with the MUC helps to determine the appropriate respirator.
7. **CDC** means the United States Centers for Disease Control and Prevention.
8. **CDHS** means the California Department of Health Services
9. **Confirmed case** means an individual who meets the definition of a Confirmed case of a ATD under diagnostic criteria accepted by the CDC, CDHS, or the infection control PLHCP. The disease must be capable of being transmitted to another individual through pulmonary, laryngeal or extrapulmonary where the infected tissue is exposed and could generate droplet nuclei.
10. **Droplet precautions** means infection control procedures designed to reduce the risk of transmission of infectious agents through contact of the conjunctivae or the mucous membranes of the nose or mouth of a susceptible person with large –particle droplets (larger than 5 μ m in size) containing microorganisms generated from a person who has a clinical disease or who is a carrier of the microorganism. Droplet Precautions apply to any patient known or suspected to be infected with epidemiologically important pathogens that can be transmitted by infectious droplets.
11. **End-of-service-life-indicator (ESLI)** means a system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.

12. **Exposure incident** means an event in which an employee has had an exposure to an individual with a diagnosed reportable disease or condition for which droplet precautions or airborne infection isolation is recommended, without the benefit of applicable exposure controls required by this plan, and it reasonably appears from the circumstances of the exposure that transmission is sufficiently likely that evaluation by a PLHCP is warranted.
13. **Fit test** means the use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. (See also Qualitative Fit Test (QLFT) and Quantitative Fit Test (QNFT).
14. **High hazard procedures** means procedures performed on a individual with suspected or confirmed aerosol transmissible disease in which the potential for being exposed to aerosol transmissible pathogens is increased due to the reasonably anticipated generation of aerosolized pathogens. Such procedures include, but not limited to, sputum, induction, bronchoscopy, endotracheal intubation, or suctioning that is not performed in an enclosed system, aerosolized administration of medications and pulmonary function testing. They also include autopsy, clinical, surgical and laboratory procedures that may aerosolize pathogens.
15. **Local health officer** means the health officer for the local jurisdiction responsible for receiving reports of communicable diseases, as defined in Title 17, of the California Code of Regulations. The regulation requires all reports be made to the local health officer for the jurisdiction where the patient resides.
16. **Maximum use concentration (MUC)** is the maximum atmospheric concentration of a hazardous substance from which an employee can be expected to be protected when wearing a respirator, and is determined by the assigned protection factor of the respirator or class of respirators and the exposure limit of the hazardous substance. The MUC usually can be determined mathematically by multiplying the assigned protection factor specified for a respirator by the NIOSH-recommended exposure limit (REL), permissible exposure limit, short-term exposure limit, ceiling limit, peak limit, or any other exposure limit used for the hazardous substance.
17. **Negative pressure** means the relative air pressure between two

areas. A room that is under negative pressure has lower pressure than adjacent areas, which keeps air from flowing out of the room and into adjacent rooms or areas.

18. **Novel or unknown ATP** means a disease agent that meets at least One of the following criteria, i.e. (1) it is a newly recognized pathogen, (2) it is a newly recognized variant of an existing pathogen for which there is reason to believe that the variant differs significantly in virulence or transmissibility, (3) it is a pathogen that has been recently introduced into the human population, or (4) it is an unknown pathogen; and in addition meets all of the following criteria: (a) it is capable of causing serious human disease, (b) there is credible evidence that it is transmissible to humans by aerosols, and (c) there is insufficient evidence to rule out transmission of the pathogen by the airborne route.
19. **Occupational exposure** means reasonably anticipated exposure to a source of ATP's under conditions that without protective measures create a significant risk that the exposed employee will contract the disease caused by an ATP. Examples of such conditions of exposure include, providing care, transport, or housing, to suspect or confirmed cases of ATDs, working in proximity to people with ATDs, and maintenance of ventilation systems containing air exhausted from AII rooms.
20. **Physician or other licensed health care professional (PLHCP)** means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide or be delegated the responsibility to provide some or all of the health care services required by standard.
21. **Qualitative fit test (QLFT)** means a pass/fail test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.
22. **Quantitative fit test (QNFT)** means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.
23. **Reportable aerosol transmissible disease (RATD)** means a disease or condition which a health care provider is required to report to the local health officer, in accordance with Title 17,

California Code of Regulations, and for which droplet precautions or airborne infection isolation are recommended by the Centers for Disease Control or the California Department of Health Services.

24. **Respirator** means a device which has met the requirements of Cal/OSHA respiratory standard and has been designed to protect the wearer from inhalation of harmful atmospheres, and has been approved by the National Institute for Occupational Safety and Health. (NIOSH)
25. **Service life** means the period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.
26. **Source Control** means the use of procedures, engineering controls and other devices or materials to minimize the spread of airborne particles and droplets from an individual who has or exhibits signs or symptoms of having an ATD, such as persistent coughing.
27. **Surge** means a rapid expansion beyond normal services to meet the increased demand for qualified personnel, medical care and public health in the event of large-scale public health emergencies or disasters.
28. **Suspect Case** means an individual who meets criteria described by the CDC, the CDHS or the Infection Control PLCP of a suspect infectious case for an ATD.

B. Safe Work Habits/ Engineering Controls

The County of San Mateo shall use feasible engineering and work practice controls to minimize employee exposures to airborne, droplet and contact transmission of aerosol transmissible pathogens, dust, fumes gases and smoke. These controls will be in accordance with the Center for Disease Control, (CDC) for airborne, contact and droplet precautions. (Attachment C)
When engineering controls and work practices do not provide sufficient protection the department shall provide and ensure that the employee use the proper respiratory protection

1. Work practices shall be implemented to prevent or minimize employee

exposures. These work practices include handwashing, gloves, eye and face protection, surgical masks, gowns and other protective apparel, and the cleaning and disinfecting of contaminated surfaces.

2. Each department shall implement written source controls procedures. These procedures shall incorporate the recommendations contained in the CDC Respiratory Hygiene/Cough Etiquette in Health Care Settings. (Attachment D)
The procedures shall include methods to inform employees entering the facility, being transported by the employee or otherwise in close contact with employees.
3. Departments that maintain vehicles or transport persons with suspected Aerosol Transmissible Diseases (ATD) will implement engineering and work practice controls to protect employees.
4. The department shall develop and implement effective written decontamination procedures for the cleaning and decontamination of work areas vehicles, and personal protective equipment.
5. Engineering controls will be used in all facilities that admit, house or provide medical services to ATD cases.
6. Information about infectious disease hazards will be provided to all contractors and temporary contract employee who may incur occupational exposure.
7. ATD transmissible cases will be identified and provided with disposable tissues and hand hygiene materials and masks or placed in such a manner that contact with employees is eliminated or until transfer can be accomplished.
8. Transfers to airborne infection isolation rooms shall occur within 5 hours of identification.
9. Transfers to other facilities shall occur within 5 hours of identification, unless there is documentation at the end of five hours, and at least every 24 hours thereafter that:
 - a. The local health officer has been contacted
 - b. There is no airborne infection room available within San Mateo County
 - c. Reasonable efforts have been made to contact establishments outside of San Mateo County.
 - d. All applicable measures recommended by the local health officer have been implemented.
 - e. All suspected employees who enter the room or area housing the individual are provided proper respiratory protection.

C. Exceptions

1. Where the treating physician determines that the transfer would be detrimental to the patient's condition. The department shall ensure that employees use respiratory protection when entering the room or housing the individual. The patient's condition will be reviewed at least every 24 hours to determine if transfer is safe. Once transfer is determined to be safe, the transfer must be made within 5 hours.
2. Where it is not feasible to provide isolation rooms or areas to individuals suspected or confirmed to be infected with aerosol transmissible pathogens the department will provide other effective control measures to reduce the risk of transmission to employees, which shall include the use of respiratory protection.

High- hazard procedures will be conducted in isolation rooms or areas, such as ventilated booths or tents. Where no isolation rooms are available or the treating physician determines it would be detrimental to the patient's condition to delay performing the procedure, the procedure may be conducted in other areas. Employees working in the room or area where the procedure is being performed shall use the required respiratory protection.

D. Isolation Room Requirements

1. Negative pressure shall be maintained in all isolation rooms. The ventilation rate shall be 12 or more air changes per hour. This will be achieved by HEPA filtration.
2. Negative pressure shall be demonstrated by smoke trails or another equally effective means daily while the room is in use.
3. Engineering controls shall be maintained, inspected and performance monitored for filter loading and leakage at least annually, or whenever filters are changed.
4. Inspections, testing and maintenance of isolation rooms shall be documented in writing.
5. Air from isolation rooms and areas that are connected by plenums or other shared air spaces shall be exhausted directly away from intake air that cannot be exhausted in such a manner or that must be recirculated must pass through HEPA filters before discharge or recirculation.
6. Ducts carrying air that may reasonably be anticipated to contain aerosol

transmissible pathogens shall be maintained under negative pressure for their entire length before in-duct HEPA filtration or until the ducts exit the building for discharge.

7. Doors and windows of isolation rooms or areas shall be kept closed while in use for airborne infection isolation.
8. When a case or suspected case vacates an isolation room or area, the room shall be ventilated for a removal efficiency of 99.9% before permitting employees to enter without respiratory protection.

E. Respirator Selection

- A. The department supervisor will select respirators to be used on site based on the hazards to which the employee is exposed and must be approved by NIOSH for the purpose for which they are used. All filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced while the respirator is in use.
- B. Where respirator use is required for protection against potentially infectious aerosols, the department shall provide a respirator that is as least as effective as an N95 filtering facepiece respirator.
- C. A powered air purifying (PAPR) with a high efficiency particulate air HEPA filter must be supplied to employees who perform high hazard procedures on aerosol identified cases or cadavers potentially infected with aerosol transmissible pathogens.
- D. Where respirators are necessary to protect against other hazards, including the uncontrolled release of biological spores, and chemical or radiologic exposures.

The department supervisor shall provide, and ensure that employees use a respirator when the employee :

1. Enters an isolation room or area
2. Is present during the performance of procedures or services for aerosol identified case or suspected case.
3. Repairs, replaces or maintains air systems or equipment that may contain aerosolized pathogens
4. Is working in an area occupied by an aerosol identified case or suspected case, and during decontamination procedures after the person has left the area.
5. Is working in a residence where an aerosol identified case or suspected case is known to be present.
6. Is present during the performance of aerosol generating procedures on cadavers that are suspected of, confirmed as, being infected with airborne infectious pathogens
7. Is performing a task in their department which requires the use of respiratory

- protection as required under the Respiratory Standard.
8. Transports an airborne identified case or suspected case in an enclosed vehicle or who transports an identified case within the facility when the individual is not masked.

F. Hazard Assessment

A. The department supervisor will select respirators to be used on site, based on the hazards to which workers are exposed and in accordance with the Respiratory Protection Standard. The department supervisor will conduct a hazard evaluation for each operation process, or work area where aerosol transmissible contaminants, fogs, gases, harmful dusts, fumes or smoke may be present in routine operations or during response to emergencies or hazardous waste operations. A log of identified hazards will be maintained by the supervisor. The hazard evaluations shall include:

1. Identification and development of a list of hazardous substances used in the workplace by the department or as required by the Cal/OSHA Hazard Communication Standard.
2. Review of work processes to determine where potential exposures to hazardous substances or diseases may occur. This review shall be conducted by surveying the workplace, reviewing process records and talking with employees and supervisors.
3. 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. Selection of the employees and appropriate respiratory protection shall be documented by the department supervisor.

G. Updating the Hazard Assessment

The department supervisor must revise and update the hazard assessment as needed or any time the work process changes. If an employee feels that respiratory protection is needed during a particular activity, they are to notify their supervisor. The department supervisor will evaluate the potential hazard and arrange for outside assessment if necessary or may contact Risk Management for assistance. The supervisor will then communicate the results of that assessment to the employees. 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.

H. Training

The department supervisor will provide training for respirator users on the contents of the Respiratory Protection Program and their responsibilities under the plan. All affected employees and their supervisors will be trained prior to using a respirator in the workplace. Supervisors will also be trained prior to supervising employees that must wear respirators. Training shall be provided at the time of initial assignment to tasks where occupational exposure may take place.

The training course will cover the following topics:

1. The County of San Mateo Respiratory Protection Program;
2. A general explanation of aerosol transmissible diseases and their signs and symptoms.
3. Modes of transmission of aerosol transmissible diseases
4. Information on the vaccines available, the benefits of being vaccinated and that they will be offered free of charge
1. Respiratory hazards encountered in the department the employee is working in, and an explanation of the use and limitations of methods that will prevent or reduce exposure.
2. Proper selection and use of respirators, and personal protective equipment
3. Limitations of respirators;
4. Respirator donning and user seal (fit) checks;
5. Fit testing;
10. Emergency exposure incident procedures and an explanation of procedures to follow if an exposure incident occurs and post – exposure follow-up.
11. Maintenance and storage of respirators
12. Medical signs and symptoms limiting the effective use of respirators.
13. Decontamination and disposal. Information on removal, handling, cleaning, decontamination and disposal of personal protective equipment

The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

Employees will be retrained annually or as needed (e.g., if they change departments or work processes or need to use a different respirator). The additional training may be limited to addressing the new exposures or control measures.

I. NIOSH Certification

All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in accordance with the terms of that certification. Also, all filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced while the respirator is in use.

J. Voluntary Respirator Use

The County of San Mateo shall authorize voluntary use of respiratory protective equipment as requested by all other workers on a case-by-case basis, depending on specific workplace conditions and the results of medical evaluations.

Department supervisors will provide all employees who voluntarily choose to wear the above respirators with a copy of Appendix D of the CAL/OSHA Respiratory Protection Standard, Section 51441. (Appendix D details the requirements for voluntary use of respirators by employees.) Employees who choose to wear a half face piece, Air Purifying Respirators must comply with the procedures for medical evaluation, respirator use, cleaning, and maintenance and storage portions of the respiratory program.

K. Medical Evaluation

Employees who are either required to wear respirators, or who choose to wear a half face piece Air Purifying Respirator shall be provided a medical evaluation to determine their ability to use a respirator. Any employee refusing the medical evaluation will not be allowed to work in an area requiring respirator use.

1. The medical evaluation will be conducted using the OSHA Respirator Questionnaire. (Appendix I)
2. All affected employees will be given a copy of the medical questionnaire to complete. Employees will be permitted to complete the questionnaire on

company time.

3. All completed questionnaires will be reviewed by US HealthWorks. Follow-up medical exams will be granted to employees as required by the standard or as deemed necessary by the evaluating physician.
4. All employees will be granted an opportunity to speak with the physician about their medical evaluation.
5. Department supervisors shall provide the evaluating physician with a copy of their department Respiratory Protection Program, the list of hazardous substances in the work area and the following information about each employee requiring evaluation.
 - a. their work area or job title
 - b. proposed respirator and type
 - c. length of time required to wear the respirator
 - d. expected physical work load.
 - e. potential temperature and humidity extremes
 - f. any additional protective clothing required
6. Positive pressure air purifying respirators will be provided to employees as required by medical necessity.
7. After an employee has received clearance to wear a- respirator, additional medical evaluations will be provided under the following circumstances.
 - a. The employee reports signs and and/or symptoms related to their ability to use the respirator, such as shortness of breath, dizziness, chest pains or wheezing.
 - b. The evaluating physician informs Risk Management that the employee needs to be reevaluated
 - c. Information found during the implementation of the program, including observations, made during the Fit Testing and program evaluation, indicates a need for reevaluation
 - d. A change occurs in workplace conditions that may result in an increased physiological burden on the employee.

L. Fit Testing

Quantitative or Qualitative face fit tests shall be performed in accordance with the procedures outlined in appendix A to section 5144 of the Cal/OSHA Respiratory Standard. The fit test shall be performed on the same size, make, model and style of respirator as the employee will use. When quantitative fit testing is performed, the employer shall not permit an employee to wear a filtering facepiece respirator unless a minimum fit factor of one hundred (100) is obtained. The department supervisor shall ensure that each employee who is assigned to use a filtering face piece or other tight –fitting respirator passes a fit test.

1. At the time of initial fitting;
2. Whenever changes occur in the employee's facial characteristics which effect the fit of the respirator.
3. Whenever a different size make, model or style of respirator is used;
and
4. At least annually thereafter.

Exception: Until January 1, 2012 the interval for repeat fit-testing may be increased to no more than two years for employees who do not perform high hazard procedures. As of January 1, 2013 an employee who uses a respirator under this section shall have been fit-tested within the previous 12 months. For those departments who require fit testing please call Risk Management

M. General Respirator Use Procedures

1. Employees will use their respirators under conditions specified in the program, and in accordance with the training they receive on the use each particular model. In addition the respirator shall not be in a manner for which it is not certified by NIOSH or by its manufacturer.
2. All employees shall conduct user seal checks each time they wear their respirator. Employees shall use either the positive or negative pressure check as specified in the Cal/OSHA Respiratory Protection Standard.

- a. **Positive Pressure Test:** This test is performed by closing off the exhalation valve with your hand. Breathe air into the mask. The face fit 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.
 - b. **Negative Pressure Test:** This test is performed by closing of the inlet openings of the cartridge with the palm of your 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 seconds. If the vacuum remains, and no inward leakage is detected, the respirator is fit properly.
3. All employees shall be permitted to leave the work area to maintain their respirator for the following reasons:
 - a. to clean their respirator if it is impeding their ability to work.
 - b. to change filters or cartridges
 - c. to replace parts; or
 - d. to inspect the respirator if it stops functioning as intended.
4. Employees 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. Employees are not permitted to wear headphones, jewelry, or other items that may interfere with the seal between the face and the face piece.
5. Before and after each use of a respirator, an employee or immediate supervisors must make an inspection of tightness or connections and the condition of the face piece, headbands, valves, filter holders and filters. Questionable items must be addressed by the supervisor.

N. Air Quality

For supplied-air respirators, only Grade D breathing air shall be used in the cylinders. The department will maintain a minimum air supply of one fully charged replacement cylinder for each SAR unit. Respirator cartridges shall be replaced as determined by the supervisor and manufacturers' recommendations.

O. Cleaning

Respirators are to be regularly cleaned and disinfected. Respirators issued for exclusive use of an employee shall be cleaned as often as necessary.

Atmosphere-supplying and emergency use respirators are to be cleaned and disinfected after each use.

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

1. Disassemble respirator, removing any filters, canisters, or cartridges
2. Wash the face piece and all associated parts except cartridges and elastic headbands) in a approved cleaner-disinfection solution in warm water. Do not use organic solvents. Use a hand brush to remove dirt.
3. Rinse completely in clean, warm water.
4. Disinfect all facial contact areas by spraying the respirator with an approved disinfectant.
5. Air dry in a clean area.
6. Reassemble the respirator and replace any defective parts. Insert new filters or cartridges and make sure the seal is tight.
7. Place respirator in a clean, dry plastic bag or other airtight container.

P. Maintenance

Respirators are to be properly maintained at all times in order to ensure that they function properly and protect employees adequately. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts are to 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.

Q. 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.

1. Respirators must be stored in a clean, dry area and in accordance with the manufacturer's recommendations. Each employee will clean and inspect their own air-purifying respirator in accordance with the respiratory program, and will store their respirator in a plastic bag in the designated area. Each employee will have their name on the bag and that bag will only be used to store that employee's respirator.
2. Respirators shall be packed or stored so that the face piece and exhalation valve will rest in a near normal position.
3. Respirators shall not be placed in places such as lockers or toolboxes unless they are in carrying cartons.
4. 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.
5. Respirators and respirator components will be stored in their original manufacturer's packaging in their designated area.

R. Respirator Malfunctions and Defects

1. For any malfunction of an ASR (atmosphere-supplying respirator), such as breakthrough, face piece leakage, or improperly working valve, the respirator wearer should inform their supervisor that the respirator no longer functions as intended. The supervisor must ensure the employee receives the needed parts to repair the respirator or is provided with a new respirator.

All employees wearing atmosphere-supplying respirators will work with a buddy. The supervisor shall develop and inform employees of the procedures to be used when a buddy is

required to assist a coworker who experiences an ASR malfunction.

2. Respirators that are defective or have defective parts shall be taken out of service immediately. If, during an inspection, an employee discovers a defect in a respirator the employee is to bring the defect to the attention of their supervisor. The supervisor will decide Whether to:
 - a. temporarily take the respirator out of service until it can be repaired.
 - b. perform a simple fix on the spot, such as replacing a head strap; or
 - c. 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 employee be given a replacement of a similar make, model and size.

S. Emergency Procedures

Employees who must remain in a dangerous atmosphere must take the following precautions:

1. Employees must never enter a dangerous atmosphere without first obtaining the proper protective equipment and permission to enter from the supervisor.
2. Employees must never enter a dangerous atmosphere without at least one additional person present. The additional person must remain in the safe atmosphere.
3. Communication (voice, visual or signal line) must be maintained between both individuals and all present.
4. Respiratory protection in these instances is for escape purposes only.

T. Program Evaluation

The department supervisor will conduct periodic evaluations of the workplace to ensure that the provisions of the respiratory program are being implemented. The evaluations will include regular consultations with employees who use respirators and their supervisor, site inspections air monitoring and a review

records

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

Identified problems will be noted in an inspection log and addressed by the department supervisor. Findings will be documented in a report. This report will list plans to correct deficiencies in the department respirator program and target dates for the implementation of these corrections.

U. Documentation and Recordkeeping

1. A written copy of the Cal/OSHA Respiratory Protection Plan and San Mateo County Respiratory Plan shall be made available to all employees who wish to review it.
2. Copies of training and fit test records shall be maintained by the department supervisor. These records will be updated as new employees are trained, as existing employees receive refresher training and as new fit tests are conducted.
3. For employees covered under the Respiratory Protection Program, the department supervisor shall maintain copies of the physician's written recommendation regarding each employee's ability to wear a respirator. Completed medical questionnaires and the evaluating physician's documented findings will remain confidential in the employee's medical records.

V. Medical Surveillance

- A. All employees with occupational exposures will be provided medical surveillance for aerosol transmissible diseases, including vaccinations, examinations, evaluations and medical management follow-up as recommended by the Center for Disease Control through **US HealthWorks, 201, Arch Street, Redwood City, (650)556-9420. Their hours of operation are Monday through Friday from 7:30 AM until 5:00 PM. After 5:00 PM and on weekends all emergency exposures will be seen at Sequoia Emergency Room, 170 Alameda de las Pulgas, Redwood City, (650)369-5811. All follow-up treatment will be provided by US HealthWorks .**
1. All vaccines and medical management will be provided at no cost to the employee.
 2. Recommended vaccinations shall be made available after the employee has received training and within ten working days of initial assignment.
 3. Additional vaccines will be made available to employees within ten days of the issuance of new CDC recommendations.
 4. If the employee initially declines the vaccination but at a later date while still covered under the standard, decides to accept the vaccination, the employer will make the vaccination available within ten working days.
 5. The employer shall assure that all employees who decline to accept A recommended vaccination sign a declination form for each recommended vaccine. (Attachment J)

W. Exposure Incidents

- A. When the County of San Mateo has determined that a person has a confirmed case of a reportable aerosol transmissible disease, shall
1. Report the case to the local health officer in accordance with Title 17.
 2. Determine, to the extent that the information is available in the employer's records, any other employers who had employees who provided medical care or transport to the infectious individual, or who had the individual in custody, or housed the individual in a shelter. The employer shall notify other employers of the date, time and nature of the potential exposure, and provide any other information that is necessary for the other employer to evaluate exposure to its employees.

- B. Each employer who becomes aware that its employees may have been exposed to a confirmed case of a reportable aerosol transmissible disease shall:
1. In consultation with either the local health officer or infection control, conduct an analysis of the exposure to determine which employees had a significant exposure to the infected individual. The consultation shall be documented in writing, and shall include the name, title of the infection control professional or local health officer, the names and employee identification numbers of employees who were included in the analysis and the basis for any determination that an employee need not be included in post-exposure follow-up because the employee did not have a significant exposure.
 2. Notify employees who had significant exposures of the date, time and nature of the exposure.
 3. As soon as feasible provide post-exposure evaluation to all employees who had a significant exposure. This evaluation will be conducted by US HealthWorks.
 4. Within 24 hours of notification, the notified employer shall determine from its records whether employees of other employers may have exposed to a confirmed case , and shall notify any such employer of information for the diagnosing employer. The notified employer shall not provide the identity of the source patient to other employers.
- C. Each employer shall assure that US HealthWorks who evaluates an employee after an exposure incident is provided the following information.
1. A description of the exposed employee's duties as they relate to the exposure incident
 2. Circumstances under which the exposure incident occurred
 3. Any available diagnostic test results, including drug susceptibility pattern or other information relating to the source of the exposure which could assist in the medical management of the employee; and
 4. All of the employer's medical records for the employee that are relevant to the management of the employee, including other relevant testing, and vaccination status.

D. Precautionary Removal Recommendation from the Physician or Other Licensed Health Care Provider

1. Each employer who provides a post exposure evaluation shall obtain from US HealthWorks an opinion regarding whether precautionary removal from the employee's regular assignment is necessary to prevent the spread of the disease agent by the employee, and what type of alternate work assignment may be provided. A recommendation for removal shall be immediately conveyed to the employer by phone or fax and documented in the written opinion.
2. When US HealthWorks recommends precautionary removal, the County of San Mateo shall maintain the employee's earnings, seniority, and all other employee rights and benefits.

E. Written Opinion from the Physician or Other Health Care Provider

1. Each employer shall obtain and provide the employee with a copy of the written opinion of the physician or other health care provider within 15 working days of the completion of all medical evaluations.
2. For exposure incidents, the written opinion shall be limited to the aerosol transmissible disease test status, the employee's infectivity level, a statement that the employee has been informed of the results of the medical evaluation and has been offered any applicable vaccinations or prophylaxis and any recommendations for precautionary removal .
3. All other findings shall remain confidential and shall not be included in the written result.

X. Record Keeping

- A. US HealthWorks shall establish and maintain an accurate record for each employee with occupational exposure.
- B. This record shall include:
 1. The name and employee identification number of the employee
 2. A copy of the employee's vaccination status including the dates of all vaccinations and any medical records relative to the employee's ability to receive vaccination as required by the standard.
 3. A copy of all results of examinations, medical testing, and follow-up Procedures

4. The employer's copy of the physician or US HealthWorks's written opinion.
 5. A copy of the information provided to US HealthWorks as required by the standard
 6. All medical records shall be kept confidential and will not be disclosed without the employee's written consent
- C. All records shall be maintained for the duration of employment plus 30 years.
- D. All departments shall maintain employee training records which shall include the following information.
1. The dates of the training sessions
 2. The contents or a summary of the training sessions
 3. The names and qualifications of persons conducting the training
 4. The names and job titles of all persons attending the training sessions.
 5. Training records shall be maintained for 3 years from the date on which the training occurred.
- E. Risk Management will maintain medical surveillance and post exposure records, including copies of the Employee Claim Form, the Supervisor's Report and the Employer's First Report of Work Injury and medical follow-up.