

RESPIRATORY PROTECTION POLICY

PURPOSE

The purpose of this program is to ensure employees are protected from acute and chronic respiratory hazards such as harmful dusts, fumes, mists, vapors, gases, or biologicals which may occur in the workplace. The prevention of acute and chronic respiratory hazards to our employees will help to prevent and/or minimize lung and respiratory tract illnesses in both the short and long term.

SCOPE

This policy applies to all employees requiring mandatory use of respirators at the County. In addition, the supplies to all employees who elect to voluntarily use filtering face pieces (i.e., dust masks) in the workplace.

POLICY

When respiratory hazards are present in the workplace and cannot be engineered or administratively controlled, employees shall utilize the appropriate respiratory personal protective equipment. Employees utilizing respiratory protection shall be enrolled in the respiratory protection program, complete medical evaluations, and complete fit testing.

Important note: Failure to properly seal check, fit test, and use the proper respirator against respiratory hazards can result in death and permanent injury. Repeated failure to use a respirator properly can result in long-term illnesses such as cancer, lung scarring, and the like.

The respiratory protection program is an extension of the County's personal protective equipment program. This program is specifically tailored towards respiratory protective equipment.

RESPONSIBILITY

The Risk Manager has the responsibility for the development and implementation of this policy. The Risk Manager shall also ensure that training programs, respiratory protection service providers and vendors, certified industrial hygienists, and other expert sources of advice are available as is necessary to ensure respiratory hazards are assessed and addressed. The Risk Manager has the responsibility to work with department heads to implement this policy.

Each department head has the responsibility to ensure that respiratory hazards in their department are addressed and evaluated to determine any respiratory protection needs. The department head is also responsible for training employees utilizing County-approved training programs. The department head will also be responsible for reporting any failures of the policy, failures in respirators, new chemicals, and other previously unidentified respiratory hazards in their department. In addition, each department head has the responsibility to ensure that employees are following the respiratory protection program. This includes ensuring that employees seal check the respirators, inspect the respirators, submit to medical evaluations and fit testing, and report any workplace incidents.

Employees enrolled in the respiratory protection program have the responsibility to comply with all provisions of this policy. Employees shall not utilize damaged, expired, or incorrect respirators. Employees have the responsibility of maintaining the respirators in good working condition. Also, employees shall ensure that new and previously unidentified hazards are reported to their department head for evaluation. Employees also have the responsibility to understand the chemicals that they are working with by reading the safety data sheets and complying with the County's hazard communication program. Employees shall not utilize respirators which fail fit testing.

TRAINING

Prior to utilizing a respirator, employees shall complete County-approved training, and submit to medical evaluation and fit testing. Respiratory protection training may be provided on an annual basis in conjunction with annual fit testing. Each specific respirator (make and model) shall be fit tested for the user prior to use.

Training will include a variety of topics on the use of respirators including selection, storage, inspections, hazards involved, medical evaluations, fit testing, seal checks, and the like. In addition, employees shall bring the respirators to training for demonstration purposes. This may include the inspection process, seal checks, and the like.

SELECTION OF RESPIRATORS

The selection of the appropriate respirator is vital to your life. Failure to select the appropriate respirator as well as the appropriate cartridge may result in death or permanent injury. The selection of the respirator is based on several factors, including the hazardous environment, concentrations in those environments, and the design, function, and manufacturer's recommendations for the respirator.

While the selection of respirators is based on the above factors, the ultimate selection of the respirator is determined at the time of fit testing for you. Each employee may have varying facial features allowing one respirator to work for one employee but not another.

The County has conducted an initial evaluation of a variety of departments to determine the respiratory needs in those locations. This evaluation was conducted by a certified industrial hygienist (CIH). Below

are 6 scenarios which may require the use of respirators. Each of these will be discussed by your department head during on-site training.

1. During change out of chlorine cylinders at the Don Pedro Wastewater Treatment Plant. Monitoring is conducted on-site by a fixed monitor. If the level of chlorine indicates a level of exposure above 1 ppm, respirator use is required. This applies to facilities personnel.
2. During dusty operations involving the movement of dust. The dust is generally nuisance dust and the PEL is 10 mg/M³. It is unlikely that this level will ever be exceeded. This applies to road crew personnel.
3. During operations involving the application of asphalt. The exposure is very intermittent and short in duration. Workers will be assigned respirators for organic vapors for use in areas around these operations. This applies to road crew personnel.
4. Respirators with pesticide/herbicide cartridges will be used during the application of pesticides or herbicides. The application or use of pesticides, herbicides, and rodent control substances is an activity that may be done by employees from the Department of Public Works or, in some very limited cases, the Department of Agriculture/Farm Advisor's Office. The exposures in these situations are always outdoors and the workers are trained to spray the chemicals away or downwind from where they are working or walking. This applies to both facilities and road crew personnel.
5. Law enforcement/jail personnel in very limited situations (i.e., discovery of drug laboratories)
6. Fire Department personnel - County employees and volunteers in the course of responding to fire or providing rescue services.

FIT TESTING

Fit testing is the process in which a selected respirator is evaluated to ensure proper fitment for you. Each person's facial features are unique and respirators may or may not create an impenetrable seal on each person.

There are a variety of methods (quantitative and qualitative) and testing agents which may be utilized to conduct fit testing. Generally, the County will utilize qualitative methodologies and a test agent which is appropriate to the respirator user. In cases where quantitative testing is appropriate based on the hazard faced, the County may elect to utilize quantitative testing. All testing protocols will be in accordance with Cal-OSHA and NIOSH regulations and standards.

The County shall arrange for fit testing of respirators to ensure that the employee has the appropriate respirator. The County will conduct fit testing on a routine basis as is necessary to ensure the proper fit of each respirator. The County will conduct fit testing:

- Annually

- When a selected respirator make and model has design changes
- When employees have facial changes (weight loss, cosmetic surgery, facial scarring, the use of dentures, removal of dentures, dental work)

Fit testing is not required for the voluntary use of respirators. In the event respirators are required to be utilized by County employees, fit testing will be performed in accordance with Title 8, Section 5144.

PHYSICAL AND MEDICAL QUALIFICATIONS

Records of medical evaluations must be retained and made available in accordance with the California Code of Regulations, Title 8, Section 5144 and 29 CFR 1910.1020.

Medical Evaluation Required

Using a respirator may place a physiological burden on employees that varies with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. The County provides a medical evaluation to determine the employee's ability to use a respirator before the employee is allowed to use the respirator in the workplace.

Medical Evaluation Procedures

The employee will be provided a medical questionnaire (Appendix C) as outlined by Cal-OSHA. The employee shall complete the medical questionnaire and the medical questionnaire will be reviewed by the department head or Risk Manager to determine if a follow-up medical examination is required.

All medical information will be kept confidential in accordance with County policy.

The County shall ensure that a follow-up medical examination is provided for an employee who gives a positive response to any question among questions in Part B of the questionnaire or whose initial medical examination demonstrates the need for a follow-up medical examination. The follow-up medical examination shall include any medical tests, consultations, or diagnostic procedures that the physician deems necessary to make a final determination.

Administration of the Medical Questionnaire and Examinations

The medical questionnaire and examinations shall be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire shall be administered in a manner that ensures that the employee understands its content. The County shall provide the employee with an opportunity to discuss the questionnaire and examination results with the physician.

Supplemental Information for the Physician

The following information must be provided to the physician before the physician makes a recommendation concerning an employee's ability to use a respirator:

- The type and weight of the respirator to be used by the employee

- The duration and frequency of respirator use (including use for rescue and escape)
- The expected physical work effort
- Additional protective clothing and equipment to be worn
- Temperature and humidity extremes that may be encountered
- Any supplemental information provided previously to the physician regarding an employee need not be provided for a subsequent medical evaluation if the information and the physician remain the same

Note: It is highly recommended to take the respirators the employee intends to use with them to their visit with the physician.

The County has provided the physician with a copy of the written respiratory protection program and a copy of the OSHA California Code of Regulations, Title 8, Section 5144.

Medical Determination

In determining the employee's ability to use a respirator, the County shall obtain a written recommendation regarding the employee's ability to use the respirator from the physician. The recommendation shall provide only the following information:

- Any limitations on respirator use related to the medical condition of the employee, or relating to the workplace conditions in which the respirator will be used, including whether or not the employee is medically able to use the respirator
- The need, if any, for follow-up medical evaluations
- A statement that the physician has provided the employee with a copy of the physician's written recommendation
- If the respirator is a negative pressure respirator and the physician finds a medical condition that may place the employee's health at increased risk if the respirator is used, the County shall provide an APR (Air Purifying Respirator) if the physician's medical evaluation finds that the employee can use such a respirator. If a subsequent medical evaluation finds that the employee is medically able to use a negative pressure respirator, then the County is no longer required to provide an APR

Additional Medical Evaluations

At a minimum, the County shall provide additional medical evaluations that comply with the requirements of this section if:

- An employee reports medical signs or symptoms that are related to the ability to use a respirator.
- A physician, supervisor, or the Risk Manager informs the County that an employee needs to be reevaluated.

- Information from the Respiratory Protection Program, including observations made during fit testing and program evaluation, indicates a need for employee reevaluation.
- A change occurs in workplace conditions (e.g., physical work effort, protective clothing, and temperature) that may result in a substantial increase in the physiological burden placed on an employee.

MEDICAL SURVEILLANCE AND ACCESS TO MEDICAL RECORDS

As part of the Respiratory Protection Program, you are automatically enrolled into the Medical Surveillance Program. You will receive a copy of your medical evaluations and reports at the time they are conducted. The Medical Surveillance Program will remind you of your annual requirement for fit testing. In the event that you would like to request records related to the Respiratory Protection Program and your testing, you may do so in accordance with the Access to Medical Records Policy. Please note that it is recommended that you keep copies for your records.

RESPIRATOR OPERATION AND USE

Respirators will only be used following the respiratory protection safety procedures established in this program. The **RESPIRATOR SELECTION MANUAL** for each type of respirator will be maintained by the Risk Manager and be available to all qualified users. Surveillance by the direct supervisor shall be maintained of work area conditions and degree of employee exposure or stress. When there is a change in work area conditions or degree of employee exposure or stress that may affect respirator effectiveness, the County shall reevaluate the continued effectiveness of the respirator.

For continued protection of respirator users, the following general use rules apply:

- Users shall not remove respirators while in a hazardous environment.
- Respirators are to be stored in sealed containers out of harmful atmospheres.
- Respirators are to be stored away from heat and moisture.
- Respirators are to be stored such that the sealing area does not become distorted or warped.
- Respirators are to be stored such that the face piece is protected.

CLEANING AND DISINFECTING

The County provides each respirator user with a respirator that is clean, sanitary, and in good working order. The County ensures that respirators are cleaned and disinfected using the Cal-OSHA protocols and Best Practices.

Cleaning and Disinfecting

The respirators shall be cleaned and disinfected when:

- A respirator issued for the exclusive use of an employee is the responsibility of that employee and shall be cleaned and disinfected as often as necessary to be maintained in a sanitary condition.
- Cleaned and sanitized no less than recommended by the manufacturer.
- A respirator issued to more than one employee shall be cleaned and disinfected before being worn by different individuals.

Respirator Storage

Respirators are to be stored as follows:

All respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they shall:

- Be packed or stored to prevent deformation of the face piece and exhalation valve.
- NOT be stored directly in a vehicle glovebox.
- NOT be stored on a vehicle dashboard.
- Be placed in an appropriate-sized reusable and resealable plastic bag or box.

REPAIR OF RESPIRATORS

Respirators that fail an inspection or are otherwise found to be defective will be removed from service to be discarded, repaired, or adjusted in accordance with the following procedures:

- Repairs or adjustments to respirators are to be made only by persons appropriately trained to perform such operations and shall use only the respirator manufacturer's NIOSH-approved parts designed for the respirator.
- Repairs shall be made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed.
- Reducing and admission valves, regulators, and alarms shall be adjusted or repaired only by the manufacturer or a technician trained by the manufacturer.

Respirator cartridge color coding:

Cal-OSHA and NIOSH have created in accordance with respirator manufacturers a color-coding system for respirator cartridges. It is important that you understand the respirator cartridge that you're placing in the respirator and the hazardous environment that you are entering. This color-coded chart is for reference only. All respirator cartridges shall be inspected and manufacturer's instructions read prior to installation on a respirator. It is important that respirator cartridges are only purchased from reputable sources to ensure your safety.

CONTAMINANT	COLOR CODING ON CARTRIDGE/CANISTER
Acid gases	White
Hydrocyanic acid gas	White with 1/2 inch green stripe completely around the canister near the bottom.
Chlorine gas	White with 1/2 inch yellow stripe completely around the canister near the bottom.
Organic vapors	Black
Ammonia gas	Green
Acid gases and ammonia gas	Green with 1/2 inch white stripe completely around the canister near the bottom.
Carbon monoxide	Blue
Acid gases & organic vapors	Yellow
Hydrocyanic acid gas and chloropicrin vapor	Yellow with 1/2 inch blue stripe completely around the canister near the bottom.
Acid gases, organic vapors, and ammonia gases	Brown
Radioactive materials, except tritium & noble gases	Purple (magenta)
Pesticides	Organic vapor canister plus a particulate filter
Multi-Contaminant and CBRN agent	Olive
Any particulates - P100	Purple
Any particulates - P95, P99, R95, R99, R100	Orange
Any particulates free of oil - N95, N99, or N100	Teal

PROGRAM INSPECTION

The Risk Manager will inspect, at least annually, Mariposa County compliance with the requirements of this Respiratory Protection Program.

RECORDKEEPING

The County will retain written information regarding medical evaluations and the respirator program. This information will facilitate employee involvement in the respirator program, assist the County in auditing the adequacy of the program, and provide a record for compliance determinations by OSHA. All training, audit, and other records prepared in association with the Respiratory Protection Program shall be managed in accordance with the County's IIPP and Record Retention Policy requirements.

DISCIPLINE

Employees enrolled in this program who fail to utilize respiratory protection will be subject to discipline in accordance with union agreements and County policy. In addition, failure to comply with the medical evaluation and fit testing program will also result in discipline in accordance with union agreements and County policy. Those employees who have not performed medical evaluation and fit testing in the specified time will not be allowed to continue to work in areas where respiratory hazards exist until such time that the appropriate medical evaluation and fit testing is completed.

REFERENCES

<u>Agency</u>	<u>Section</u>	<u>Link</u>
Cal-OSHA	Title 8	https://www.dir.ca.gov/samples/search/query.htm
Cal-OSHA	5144	https://www.dir.ca.gov/title8/5097.html

FREQUENTLY ASKED QUESTIONS ANSWERED BY FEDERAL OSHA

Are there any cautions or limitations when using respirators?

Yes. Each type of respirator can come in several varieties, each with its own set of cautions, limitations, and restrictions of use. Tight-fitting respirators require fit testing to ensure an adequate fit to the face and cannot be used with facial hair. Certain escape respirators use a nose clip and mouthpiece, which is clenched between your teeth, similar to a snorkel. Some respirators prevent the user from talking while others have speaking diaphragms or electronic communication devices. Every respirator contaminated with hazardous chemicals should be cleaned and decontaminated or disposed of properly.

All respirators require training in order to be properly used. Sometimes you can practice using your own respirator. Some escape respirators come in a package that must remain sealed until use, so you need to be trained using a special “practice” version. Training is extremely important in regard to the storage, maintenance, use, and disposal of the respirator. This information is provided by the supplier of the respirator (i.e., seller, distributor, or manufacturer). If you do not use a respirator correctly, it is very likely that it will not adequately protect you and may even hurt you.

How well does a respirator need to fit me?

If your mask does not make a tight seal all the way around your face when you inhale, you may breathe contaminated air that leaks around the edges of the face seal. Most respirators come in different styles and sizes and fit different people differently because people's faces have different shapes. You also need training to know how to correctly put the mask on and wear it correctly. This information should be provided by the supplier of the respirator.

The only way to tell if a tight-fitting respirator fits you properly and is capable of protecting you is to fit test the respirator. Fit testing can be accomplished in a number of different ways and should be done by a health and safety professional before workers wear a respirator in a hazardous environment. Respirators must be checked for proper fit each time they are donned to ensure they provide adequate protection.

Can I wear a respirator if I have a beard?

Anything that prevents the face mask from fitting tightly against your face, such as a beard or long sideburns, may cause leakage. If your respirator requires a tight fit, you must trim back your beard so that it will not interfere with the face-facepiece seal. If your respirator is a loose-fitting (hooded) positive pressure respirator (e.g., a powered air-purifying respirator, PAPR) then you may have a beard.

If I have the right cartridges/filters for a certain hazard, and my mask fits, will they always protect me against that hazard?

No. Gas masks and respirators reduce exposure to the hazard, but if the exposure is such that it goes beyond what the filter is capable of handling (either because the amount of toxic gas or particles is more than what the filter is designed to handle, or because the exposure lasts longer than what the filter is designed to handle), the filter may not be effective in providing the required protection. Also, there may

be a small amount of leakage even if the fit of the respirator has been tested. If so, and if there is a large amount of a toxic chemical in the outside air, even that small leakage can be dangerous.

Can anyone wear a respirator?

No. Breathing through a respirator is more difficult than breathing in open air. People with lung diseases, such as asthma or emphysema, elderly people, and others may have trouble breathing. People with claustrophobia may not be able to wear a full facepiece or hooded respirator. People with vision problems may have trouble seeing while wearing a mask or hood (there are special masks for people who need glasses). Employees must be medically evaluated before being assigned to use a respirator.

Will my cartridge/filter and respirator mask protect forever?

No. Cartridges, filters, and masks get old. If the filter cartridges are outdated, have been open to the air, or are damaged, you may not be protected. Cartridges that contain charcoal or other chemicals for filtering the air should be kept in air-tight packages until use. If cartridges are open or not packed in air-tight packaging, they should not be used. Even cartridges in original packaging have expiration dates that should be checked before purchase and use. Also, over time your mask can get old and break down. Keep your mask in a clean, dry place, away from extreme heat or cold. Inspect it before and after use according to the manufacturer's instructions. Cartridges also have a limited service life; they must be changed periodically during use.

Will a gas mask protect me if there is not enough oxygen in the air?

No. Air-purifying respirators do not provide oxygen. If used in an environment with low oxygen levels, such as in a fire or a confined space, you are in danger of asphyxiation.

Will a gas mask protect me if there is a fire?

Most will not. It's important to read the manufacturer's information if your main concern is to be able to escape from a smoke-filled building. Smoke particles can rapidly clog gas mask filters, and filters with special chemicals are needed to protect against carbon monoxide and other gases that may occur in a fire. Not all gas masks or escape respirators protect against these hazards. Some components, including hoods and facepieces, of many of the gas masks and escape respirators may melt if exposed to a fire.

Once I put on my gas mask, how long will it last?

That depends on how much filtering capacity the respirator has and the amount of hazard in the air – the more chemical or biological hazard in the air (higher concentration), the shorter the time your filter will last. There is no absolute time limit, and it will vary by each respirator model's capacities and the concentration of the hazard.

QUESTIONS TO CONSIDER REGARDING ANY RESPIRATOR YOU ARE CONSIDERING PURCHASING:

- What protection (which chemicals and particles, and at what levels) does the respirator provide?
- Is there more than one size?
- Which size should I use?
- How do I know if the gas mask or respirator will fit?
- What type of training do I need?
- Are there any special maintenance or storage conditions?
- Will I be able to talk while wearing the respirator?
- Does the hood restrict vision or head movement in any way?
- Can I carry the device in the trunk of my automobile?
- Is a training respirator available?