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## 1.0 POLICY

This policy specifies safe work practices when the air quality equals or exceeds the Air Quality Index (AQI) of 151, for particulate matter (PM) 2.5 or smaller, due to wildfire smoke. This program applies to employees exposed to such conditions for greater than one (1) cumulative hour per work shift.

This program covers the Casitas Municipal Water District (CMWD) safe work practices and procedures for preventing injury and illness from wildfire smoke in accordance with the CMWD Injury and Illness Prevention Program (IIPP) and California Code of Regulations, Title 8, General Industry Safety Orders, Division 1, Chapter 4, Section 5141.1, Protection from Wildfire Smoke.

## 2.0 PURPOSE

- 2.1 If employees may be exposed to wildfire smoke, then the employer is required to find out the current AQI applicable to the worksite. If the current AQI for PM<sub>2.5</sub> is 151 or greater, the employer is required to:
- 2.1.1 Check the current AQI before and periodically during each shift
  - 2.1.2 Provide training to employees
  - 2.1.3 Lower employee exposures
  - 2.1.4 Provide respirators and encourage their use

## 3.0 DEFINITIONS

- 3.1 Air Quality Index (AQI): The method used by the U.S. Environmental Protection Agency (U.S. EPA) to report air quality on a real-time basis. Current AQI is also referred to as the "NowCast", and represents data collected over time periods of varying length in order to reflect present conditions as accurately as possible. The current AQI is divided into six categories as shown in the table below, adapted from Table 2 of Title 40 Code of Federal Regulations, Part 58 Appendix G.

Air Quality Index (AQI) for Particulate Matter (PM) 2.5 Microns in Diameter or less	Levels of Health Concern
<u>0 to 50</u>	<u>Good</u>
<u>51 to 100</u>	<u>Moderate</u>
<u>101 to 150</u>	<u>Unhealthy for Sensitive Groups</u>
<u>151 to 200</u>	<u>Unhealthy</u>
<u>201 to 300</u>	<u>Very Unhealthy</u>
<u>301 to 500</u>	<u>Hazardous</u>
<u>Note: 1 Micron = 1/25,000<sup>th</sup> inch</u>	

- 3.2 NIOSH: The National Institute for Occupational Safety and Health of the US Centers for Disease Control and Prevention. NIOSH tests and approves respirators for use in the workplace.  
NIOSH link: <https://www.cdc.gov/niosh/topics/respirators/default.html>
- 3.3 PM 2.5: Solid particles and liquid droplets suspended in the air, known as Particulate Matter (PM), with an aerodynamic diameter of 2.5 micrometers or smaller.
- 3.4 Wildfire Smoke: Emissions from fires in wildlands; i.e. sparsely populated areas covered primarily by grass, brush, trees, crops or a combination thereof.

#### **4.0 RESPONSIBILITIES**

- 4.1 Management shall:
  - 4.1.1 Ensure the elements of this program are followed by all affected employees, personal service contractors, interns, and volunteers.
  - 4.1.2 Ensure employees are provided the resources and training necessary to safely implement this program.
  - 4.1.3 Ensure all potentially exposed departmental job classifications and tasks affected by this program are identified.
  - 4.1.4 Ensure periodic audits and inspections of the workplace are conducted to maintain compliance with this and all other departmental safety programs.
- 4.2 Supervisors shall:
  - 4.2.1 Ensure training is provided for all affected employees under their supervision.
  - 4.2.2 Maintain accurate training records.
  - 4.2.3 Ensure effective two-way communication exists between employees and supervision.
  - 4.2.4 Monitor employee exposure to unhealthy AQI of 151 or greater during the work shift.
  - 4.2.5 Ensure adequate supplies of approved particulate respirators are readily available at the worksite.
  - 4.2.6 Periodically monitor the AQI when the index is equal to or exceeds 151 and ensure this information is effectively communicated in a form readily understandable to all employees.
  - 4.2.7 Ensure employees have access to prompt medical care without fear of reprisal.
- 4.3 Employees shall:
  - 4.3.1 Follow the procedures and safe work practices of this program.
  - 4.3.2 Inform their supervisor if they notice air quality is getting worse or they are suffering symptoms due to poor air quality.
  - 4.3.3 Attend safety training on the application of this program and to inform their supervisors if they did not understand any of the provisions herein.

#### **5.0 IDENTIFICATION OF HARMFUL EXPOSURES**

- 5.1 For worksites covered by this program, departments shall determine

employee exposure to PM 2.5 prior to each shift and, at a minimum, hourly thereafter. Air Quality Index (AQI) forecasts and current AQI for PM 2.5 shall be obtained by inputting the appropriate worksite zip code, using the U.S. EPA AIRNOW website at <https://www.airnow.gov/>. As an alternative, employees can contact the Ventura County Air Pollution District at (805-645-1400) or visit their website at <http://www.vcapcd.org/contact.htm> for current AQI information.

- 5.2 It is also highly recommended that employees download the EPA's AIRNow I-Phone application for instantly available AQI and related health information.

**NOTE: Worksites covered by this policy are to include any site where it can be reasonably anticipated that employees may be exposed to wildfire smoke.**

- 5.3 The following CMWD workplaces are exempt from this policy:
  - 5.3.1 Enclosed buildings or structures in which the air is filtered by a mechanical ventilation system and the department ensures that windows, doors, bays, and other openings are kept closed to minimize contamination by outdoor or unfiltered air.
  - 5.3.2 Enclosed vehicles in which the air is filtered by a cabin air filter and the department ensures that windows, doors, and other openings are kept closed to minimize contamination by outdoor or unfiltered air.

## 6.0 COMMUNICATION

- 6.1 As required by CCR section 3203, departments shall implement a system for communicating wildfire smoke hazards in a form readily understandable to affected employees
- 6.2 Methods of communication shall include, but not be limited to, pre-job/pre-task planning meetings, daily briefings, emails, text messaging, conference calls, and other effective means.
- 6.3 Employees shall be encouraged to report any worsening outdoor conditions, as well as to report any adverse symptoms resulting from wildfire exposure without fear of reprisal. Departments, through management or supervisory personnel, shall alert employees when the air quality is harmful and what protective measures are available to employees.

## 7.0 HAZARD CONTROL METHODS FOR EMPLOYEE EXPOSURES

- 7.1 **Engineering Controls:** Departments shall reduce the employee exposure to PM2.5 to less than a current AQI of 151 by engineering controls, whenever feasible, for instance, by providing enclosed buildings, structures, or vehicles where the air is filtered. If engineering controls are not enough to reduce exposure to PM2.5 to less than a current AQI OF 151, then the department shall reduce employee exposures as much as feasible.
- 7.2 **Administrative Controls:** Whenever engineering controls are not feasible, or do not reduce employee exposures to PM2.5 to less than a current AQI of 151, the employer shall implement administrative controls, if practicable, such as relocating work to a location where the current AQI for PM2.5 is lower, changing work schedules, reducing work intensity, or providing additional rest periods.

7.3 **Personal Protection Equipment (N95 particulate respirators)**

7.3.1 Where the current AQI for PM2.5 is equal to or greater than 151, but does not exceed 500, the department shall provide N95 particulate respirators to all affected employees for voluntary use in accordance with Title 8 CCR, §5144 and encourage employees to use respirators. Respirators shall be National Institute for Occupational Safety and Health (NIOSH) approved devices that effectively protect the wearers from inhalation of PM2.5. The N95 particulate respirator is the minimum level of protection required for wildfire smoke. In addition to N class respirators, R and P class units with efficiency ratings of 95, 99, and 100 are also acceptable under NIOSH guidelines.

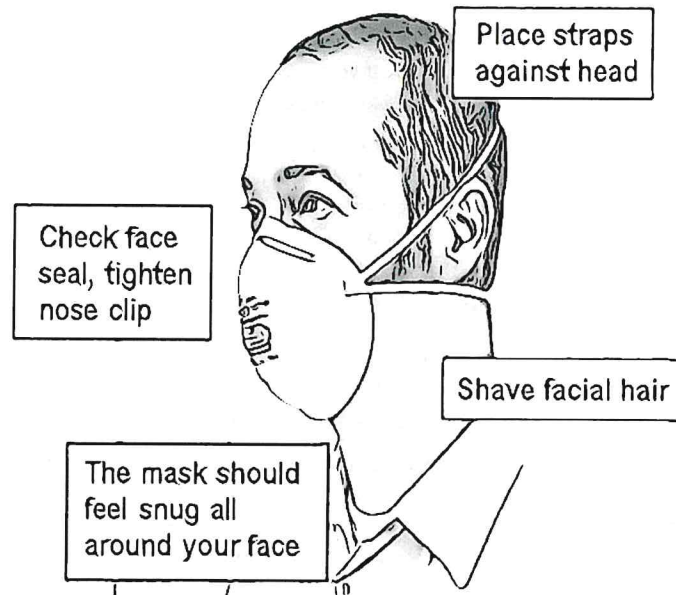
7.3.2 Respirators shall be cleaned, stored, maintained, and replaced so that they do not present a health hazard to users. Respirators must be replaced at least every eight hours, or sooner if the respirator becomes damaged, soiled, or breathing becomes difficult. An adequate supply of N95 particulate respirators shall be made readily available at each affected worksite when necessary.

**NOTE: For voluntary use of filtering facepieces, such as N95 particulate respirators, fit testing and medical evaluations will not be required.**

7.3.3 Where the current AQI for PM2.5 exceeds 500, a higher level of respirator use is required in accordance with Title 8 CCR, §5144 and the CMWD Respiratory Protection Program. Refer to the CMWD program or contact the Safety Officer for assistance in such a circumstance.

7.3.4 To get the most protection from a respirator, there must be a tight seal around the face. A respirator will provide much less protection if facial hair interferes with the seal. The proper way to put on a respirator depends on the type and model of the respirator.

- 7.3.5 How to properly don, use and maintain particulate respirators:
- 7.3.5.1 Place the mask over the nose and under the chin, with one strap placed below the ears and one strap above.
  - 7.3.5.2 Pinch the metal sealing strip (if there is one) of the respirator over the top of the nose so it fits securely.



**NOTE:** Shaving is not required for voluntary respirator use, however, it is recommended for a proper facial seal.

- 7.3.5.3 For a respirator that relies on a tight seal to the face, check how well it seals to the face by following the manufacturer's instructions for user seal checks. Adjust the respirator if air leaks between the seal and the face. The more air leaks under the seal, the less protection the user receives. Respirators must be replaced if they get damaged, deformed, dirty, or difficult to breathe through. Particulate respirators are disposable respirators that cannot be cleaned or disinfected. At a minimum, replace particulate respirators at the beginning of each shift. If you have symptoms such as difficulty breathing, dizziness, or nausea, go to an area with cleaner air, take off the respirator, and get medical help if necessary.

## 8.0 RESOURCES

- 8.1 California Code of Regulations Title 8, section 5141.1 (Effective 7/29/19)
- 8.2 California Code of Regulations Title 8, section 3203

## ATTACHMENTS:

Attachment A: Wildfire Smoke Respirator Use

## ATTACHMENT A



# Wildfire Smoke Respirator Use

Wildfire smoke can irritate your eyes, nose, throat, and lungs. It can make you cough and wheeze, and can make it hard to breathe. If you have asthma or another lung disease, or heart disease, inhaling wildfire smoke can be especially harmful.

If you cannot leave the smoky area, good ways to protect your lungs from wildfire smoke include staying indoors and reducing physical activity. Wearing a special mask called a “particulate respirator” can also help protect your lungs from wildfire smoke. These respirators should be used mostly by people who have to go outdoors.

## Will a respirator protect me from wildfire smoke?

Respirators labeled NIOSH N95 or N100 provide protection – they filter out PM2.5 particles but not hazardous gases (such as Carbon Monoxide or organic vapors). Contact your supervisor to request a filtering facepiece respirator.

- Choose an N95 or N100 respirator that has two straps that go around your head. Don’t choose a one-strap paper dust mask or a surgical mask that hooks around your ears – these don’t protect against the fine particles in smoke.
- Choose a size that fits over your nose and under your chin. It should seal tightly to your face. These respirators don’t come in sizes that fit young children
- Don’t use bandanas or towels (wet or dry) or tissue held over the mouth and nose. These may relieve dryness but they won’t protect your lungs from wildfire smoke.

Anyone with lung or heart disease or who is chronically ill should check with their health care provider before using any respirator. Using respirators can make it harder to breathe, which may make existing medical conditions worse. The extra effort it takes to breathe through a respirator can make it uncomfortable to use them for very long. Respirators should be used mostly by people who have to go outdoors.

Respirators shouldn’t be used on young children – they don’t seal well enough to provide protection. They also don’t seal well on people with beards.

## How do I use my respirator?

- Place it over your nose and under your chin, with one strap placed below the ears and one strap above. Adjust the mask so that air cannot get through at the edges.
- Pinch the metal sealing strip tightly over the top of your nose.
- The respirator fits best on clean shaven skin.
- Throw it away when breathing through it gets difficult, if it gets damaged or dirty. Replace respirators at least once per shift.
- It’s harder to breathe through a respirator, so take breaks often if you work outside.
- If you feel dizzy or nauseated, go to a less smoky area, take it off, notify your supervisor and get medical help if you don’t feel better.

<https://www.dir.ca.gov/dosh/Worker-Health-and-Safety-in-Wildfire-Regions.html>



N95 respirators can help protect your lungs from wildfire smoke. Straps must go above and below the ears.



A one-strap paper mask will **NOT** protect your lungs from wildfire smoke.



A surgical mask will **NOT** protect your lungs from wildfire smoke.