

San Diego Police Department

TRAINING BULLETIN

A PUBLICATION OF THE SAN DIEGO POLICE DEPARTMENT

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WILDFIRE SMOKE PROTECTION PLAN

This Training Bulletin should be reviewed and acknowledged via Success Factors

I. PURPOSE

The purpose of this Training Bulletin is to help explain procedures associated with Cal/OSHA's Wildfire Smoke Protection standard.

II. BACKGROUND

The emergency regulation, [Title 8, Section 5141.1, Protection from Wildfire Smoke](#), took effect July 29, 2019. Under the new regulation, employers must take steps to protect workers who may be exposed to wildfire smoke.

III. REQUIREMENTS

A. Requirements of Title 8, Section 5141.1, Protection of Wildfire Smoke.

Under the new regulation, employers must take the following steps to protect workers who may be exposed to wildfire smoke:

1. **Identify** potential exposures to unhealthy levels of wildfire smoke before each shift and periodically thereafter, as needed to protect the health of the employee.
2. **Communicate** wildfire smoke hazards in a form readily understandable by all affected employees, including provisions designed to encourage employees to inform the employer of wildfire smoke hazards at the worksite without fear of reprisal.
3. **Provide documented training** to employees who may be exposed to unhealthy levels of wildfire smoke.
4. **Control/reduce** unhealthy exposure to wildfire smoke through the implementation of engineering and administrative controls. If individuals will be exposed to unhealthy levels of wildfire smoke (PM_{2.5} AQI >150) for greater than one hour per shift, they must be provided NIOSH-approved filtering facepiece respirators (N95 or greater) for voluntary use.

Those employees who work outdoors or in a location that does not have mechanical air filtration and have the above identified criteria, must be provided the following:

- a. The current AQI before and periodically during each shift;
- b. Documented training covering the information in this document;
- c. Work modifications to reduce their exposure; and
- d. Respirators with encouragement and instruction on how to use them

Important: Voluntary use of respirators for Wildfire Smoke Protection is only required when PM 2.5 levels are between 151-500. Voluntary usage of a respirator for anything other than Wildfire Smoke Protection requires specific Respiratory Program elements not included in this document.

Exemptions to the Cal/OSHA Wildfire Smoke Protection Standard per Title 8, Section 5141.1(a)(2)(A)-(E):

- Enclosed buildings or structures in which the air is filtered by a mechanical ventilation system and the employer ensures that windows, doors, bays, and other openings are kept closed to minimize contamination by outdoor or unfiltered air.
- Enclosed vehicles in which the air is filtered by a cabin air filter and the employer ensures that windows, doors, and other openings are kept closed to minimize contamination by outdoor or unfiltered air.
- The employer demonstrates that the concentration of PM_{2.5} in the air does not exceed a concentration that corresponds to a current AQI of 151 or greater by measuring PM_{2.5} levels at the worksite in accordance with Appendix A of Title 8, Section 5141.1. https://www.dir.ca.gov/Title8/5141_1a.html
- Employees exposed to a current AQI for PM_{2.5} of 151 or greater for a total of one hour or less during a shift.

Note: Department specific policies apply when responding to emergency operations.

B. Health Effects of Wildfire Smoke.

Although there are many hazardous constituents of wildfire smoke, the primary harmful pollutant for people who are not close to the fire is fine particulate matter (tiny particles suspended in the air). Particulate matter can irritate the lungs and cause persistent coughing, phlegm, wheezing, or difficulty breathing. It can also cause more severe problems, such as reduced lung function, bronchitis, worsening of asthma, heart failure, and early death. People over 65 and people who already have heart and lung problems are most likely to suffer from serious health effects. The smallest – and usually the most harmful – particulate matter is called PM_{2.5} because it has a diameter of 2.5 micrometers or smaller.

C. The right to obtain medical treatment without fear of reprisal.

Employers must allow employees who show signs of injury or illness due to wildfire smoke exposure to seek medical treatment and may not punish affected employees for seeking

such treatment. Employers must also have effective provisions made in advance for prompt medical treatment of employees in the event of serious injury or illness caused by wildfire smoke exposure.

D. How to obtain the current Air Quality Index (AQI) for PM 2.5.

Various government agencies monitor the air at locations throughout California and report the current AQI for those places. The AQI is a measurement of how polluted the air is. An AQI over 100 is unhealthy for sensitive people, and an AQI over 150 is unhealthy for everyone. Although there are AQIs for several pollutants, Title 8, section 5141.1, only uses the AQI for PM 2.5.

The easiest way to find the current and forecasted AQI for PM 2.5 is to go to <https://www.airnow.gov/> and enter the zip code of the location where employees will be working. The current AQI is also available from the U.S. Forest Service at <https://tools.airfire.org/> and the local air quality district, which can be located at <https://ww3.arb.ca.gov/capcoa/dismap.htm>. Employees who do not have access to the internet need to be able to contact their supervisor for the current AQI. Additionally, the EPA website www.enviroflash.info can transmit daily and forecasted AQIs by text or email for particular cities or zip codes.

In the near future, a shortcut to obtain the daily / situational AQI will be added to the department's intranet page.

E. Two-way communication.

Supervisors must alert employees when the air quality is harmful and what protective measures are available to employees. Supervisors shall also encourage employees to inform them if they notice the air quality is getting worse, or if they are suffering from any symptoms due to the air quality, without fear of reprisal.

This information will be communicated to employees by any of the following options: in-person, via text, email, radio,

MCT, patrol line-ups or other effective means. Supervisors should exercise sound judgement in providing air quality updates as related to the effects of wildfire smoke exposure.

F. Methods for protecting employees from wildfire smoke.

Supervisors must take action to protect employees from PM 2.5 when the current AQI for PM 2.5 is 151 or greater. Methods for reducing employees may include:

1. Relocating work to enclosed structures or vehicles where the air is filtered.
2. Moving workers to a place with a lower current AQI for PM 2.5.
3. Reducing work time in areas with unfiltered air.
4. Increasing rest time and frequency and providing a rest area with filtered air.
5. Reducing the physical intensity of the work to help lower the breathing and heart rates.

G. The importance, limitations, and benefits of using a respirator when exposed to wildfire smoke.

Respirators can be an effective way to protect employee health by reducing exposure to wildfire smoke when they are properly selected and worn. Surgical masks or other items worn over the nose and mouth such as scarves, T-shirts, and bandanas do not provide protection against wildfire smoke. A NIOSH certified N95 filtering facepiece respirator (shown in the image below) is the minimum level of respiratory protection allowable for wildfire smoke. Filtering facepiece respirators such as N95s will not protect the user against gases, chemical vapors, oxygen deficient atmospheres or highly toxic materials. When the current AQI for PM 2.5 is 151 or greater, supervisors shall provide their workers with proper respirators for voluntary use. If the current AQI is greater than 500, only authorized personnel who are trained in a Respiratory Program will be permitted to work.

H. How to properly put on, use, and maintain respirators provided.

Respirators must be used properly and replaced if they become damaged, deformed, dirty, or difficult to breathe through. Filtering facepiece respirators such as N95s are disposable and cannot be cleaned or disinfected and should be replaced at the beginning of each shift. Employees who have symptoms such as difficulty breathing, dizziness, or nausea, should go to an area with cleaner air, remove their respirator, and notify their supervisor or get medical aid as needed. When wearing a respirator, the following precautions must be taken: Only respirators certified by the National Institute for Occupational Safety and Health (NIOSH) for protection against particulates should be used, such as N95. A label or statement of certification should appear on the respirator or respirator packaging. It will list what the respirator is designed for (particulates, for example).

1. Read and follow the manufacturer's instructions on the respirator's use, maintenance, cleaning, and care, along with any warnings regarding the respirator's limitations. The manufacturer's instructions for medical evaluations, fit testing, and shaving do not need to be followed when used for Wildfire Smoke Protection.
2. Do not wear respirators in areas where the air contains contaminants for which the respirator is not designed. A respirator designed to filter particles will not protect you against gases or vapors, and it will not supply oxygen.
3. Employees should keep track of their respirator so that they do not mistakenly use someone else's respirator.
4. Employees need to talk to their doctor if they have heart or lung problems before wearing a respirator.

To get the most amount of protection from a respirator, there must be a tight seal between the respirator and the user's face. A respirator will provide much less protection if facial hair interferes with the seal. Follow the manufacturer's instructions for user seal checks and 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. Follow the instructions below for proper donning of the N95 and other filtering facepiece respirators:

1. Place the mask over the nose and under the chin, with one strap placed below the ears and one strap above.
2. Massage the metal part (if there is one) of the respirator over the top of the nose so it fits securely.
3. Perform user seal checks per the manufacturer's instructions.

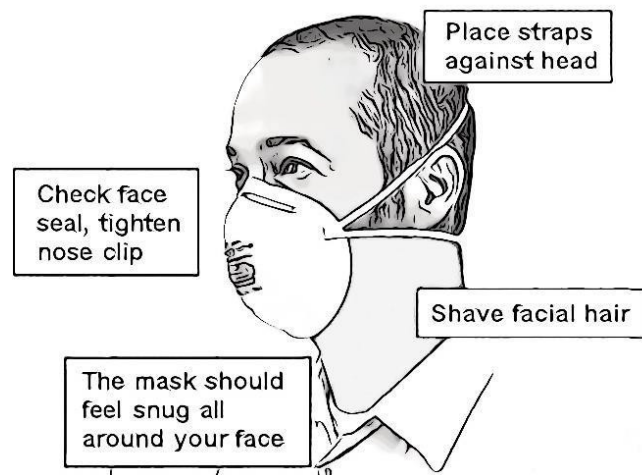


Figure 1. Drawing Showing Proper Fitting of a Filtering Facepiece Respirator (shaving is not required for voluntary respirator use).

I. Replacement N95s.

Department personnel needing replacement N95s should first contact their divisional / unit PPE point of contact. During an emergency wildfire event, the Critical Incident Management Unit has On-Call personnel and can be available to respond with replacement N95s.

Questions should be directed to the Critical Incident Management Unit at (619) 531-2324.

Please read at squad conferences and give a copy to all personnel.