



*For compliance with Cal/OSHA  
General Industry Safety Standard,  
CCR Title 8, Sec. 5141.1*

# Protection from Wildfire Smoke

San Diego State University  
Environmental Health & Safety  
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# Training Content



The health effects of wildfire smoke.



The right to obtain medical treatment.



How employees can obtain the current Air Quality Index (AQI) for PM<sub>2.5</sub>.



The requirements in Title 8, section 5141.1 about wildfire smoke.



The employer's two-way communication system.



The employer's method to protect employees from wildfire smoke.

*in compliance with CCR Title 8, Sec. 5141.1 (e) and Appendix B*



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



How to properly put on, use, and maintain the respirator provided by the employer.

# The health effects of wildfire smoke



- Although there are many hazardous chemicals in wildfire smoke, the main harmful pollutant for people who are not very close to the fire is “particulate matter,” the tiny particles suspended in the air.
- Particulate matter can irritate the lungs and cause persistent coughing, phlegm, wheezing, or difficulty breathing. Particulate matter can also cause more serious 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 the most likely to suffer from serious health effects.
- The smallest -and usually the most harmful -particulate matter is called PM<sub>2.5</sub> because it has a diameter of 2.5 micrometers or smaller.

# The right to obtain medical treatment



- Employers shall 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 shall 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.
- SDSU employees should notify their supervisor and EH&S within 24 hours of any workplace-caused injury or illness, including those related to work-related wildfire smoke exposure.
  - The supervisor must complete the [Supervisor's Report of Work Related Injury/Illness Form](#) and submit it to SDSU Human Resources.
  - Employees seeking treatment for wildfire smoke exposure can be evaluated at Sharp Rees-Stealy Occupational Health Services, Sharp Rees-Stealy Urgent Care, or another designated facility for evaluation and treatment.

# How employees can obtain the current Air Quality Index (AQI) for PM2.5

- In the event of a wildfire, the [SDSU Office of Emergency Management](#) and/or the [SDSU Department of Strategic Communications and Public Affairs](#) will provide Air Quality Index (AQI) information to the campus community. However, individuals can also monitor the AQI by visiting one of the following websites:
- United States Environmental Protection Agency: <https://www.airnow.gov/>
- San Diego Air Pollution Control District: <https://www.sdapcd.org/>
- U.S. Forest Service Wildland Air Quality Response Program: <https://wildlandfiresmoke.net>

<i>Air Quality Index (AQI)</i>	
<i>Categories for PM2.5</i>	<i>Levels of Health Concern</i>
0 to 50	Good
51 to 100	Moderate
101 to 150	Unhealthy for Sensitive Groups
151 to 200	Unhealthy
201 to 300	Very Unhealthy
301 to 500	Hazardous

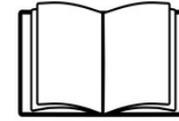
# Protection from Wildfire Smoke



[Cal/OSHA General Industry Safety Standard, CCR Title 8, Sec. 5141.1](#)



Who the regulation applies to.



Definitions of AQI, PM2.5, etc.



How to obtain AQI information.



Communication between employer and employee about smoke exposure.



Methods to control smoke exposure.



N95 respirator use.

# SDSU's two-way communication system for protection from wildfire smoke

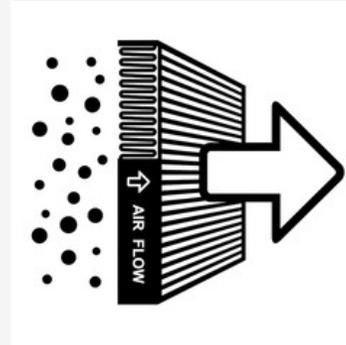


1. [Strategic Communications and Public Affairs](#) and the [Office of Emergency Management](#) are responsible for informing the campus about air quality, protective measures, and campus closures, with consultation provided by EH&S. Communication methods can include emails, text alerts, and/or [SDSU website updates](#).
2. Employees are encouraged to notify their supervisors of worsening air quality and any adverse symptoms they may be experiencing due to smoke exposure. Supervisors must then relay this information to [EH&S](#) (619-594-6778) for follow-up.

# SDSU's wildfire smoke exposure protection methods



1. The primary method of controlling exposure to wildfire smoke at SDSU is Engineering Controls. Acceptable Engineering Controls include enclosed buildings, structures, or vehicles where the air is filtered.



2. Whenever Engineering Controls are not feasible or do not reduce employee exposure to PM 2.5 to less than a AQI of 151, SDSU will implement Administrative Controls. Acceptable Administrative Controls include relocating workers to a location where the AQI is lower, changing work schedules, reducing work intensity, or providing rest periods.

The *SDSU Wildfire Smoke Exposure Management Program*, which can be found on the [SDSU EH&S webpage](#), provides additional wildfire smoke exposure protection information.

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



1. When properly selected and worn, respirators can provide respiratory protection against airborne hazards such as PM<sub>2.5</sub>.
2. Filtering facepiece respirators, such as [N95 respirators](#), do not protect you against gases and vapors, and they do not provide oxygen.
3. During a wildfire event, respiratory protection can be beneficial even when the AQI for PM<sub>2.5</sub> is <151.
4. When the AQI for PM<sub>2.5</sub> is 151-500, respirator use is voluntary. When the AQI is >500, respirator use is required.

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



5. Medical clearance is not required for voluntary N95 respirator use in the event of a wildfire however, employees with heart or respiratory conditions should consult their physician before using a respirator.
6. Respirators must be certified by the [National Institute for Occupational Safety and Health \(NIOSH\)](#). The respirator or packaging should indicate that it has been NIOSH certified.
7. The respirator manufacturer's use, maintenance, cleaning, and care instructions must be followed.

# How to properly put on, use, and maintain the respirator provided by the employer



The manufacturer's instructions will inform the user of how to properly put on, use, and maintain that specific respirator.

The following are general guidelines:

- To be effective, respirators must have a tight seal around the user's face.
- Facial hair should not interfere with the seal of the mask.
- N95 filtering facepiece respirators are disposable and should be replaced at the beginning of each work shift.
- Respirator filters or N95 filtering facepiece respirators should be replaced if they are damaged, heavily soiled, or are difficult to breathe through.
- If you have symptoms such as difficulty breathing, dizziness, or nausea, go to an area with cleaner air, take off the respirator, and seek medical attention.

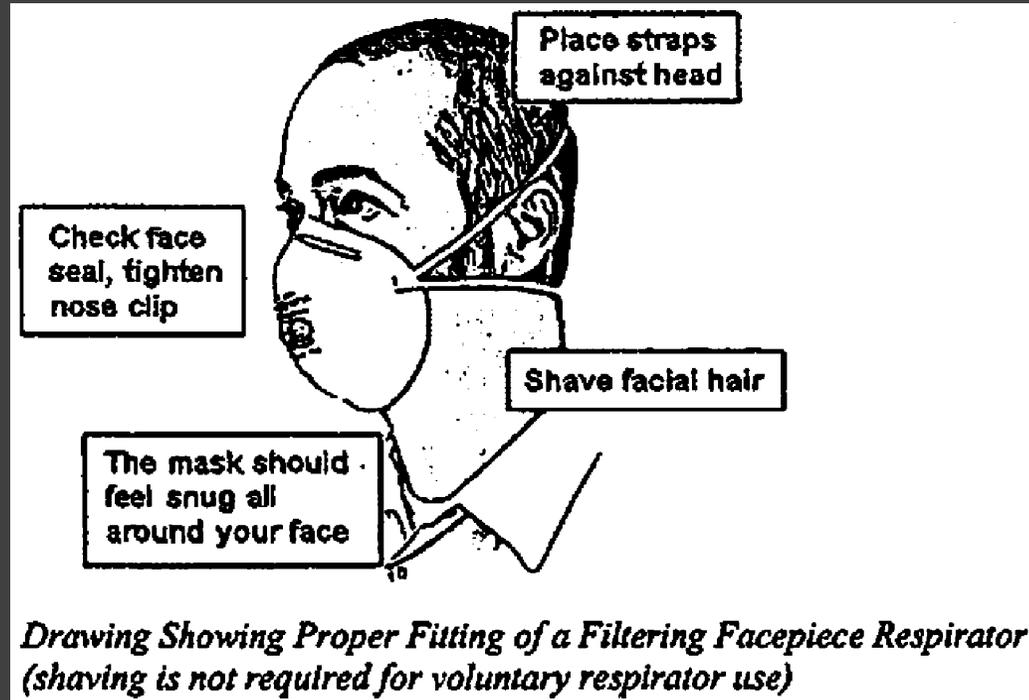
For those who use an N95 or other filtering facepiece respirator mask that is made of filter material



Place mask over the nose and under the chin, with one strap below the ears and one strap above.



Pinch the metal part (if there is one) of the respirator over the top of the nose so it fits securely.



# For additional information

**San Diego State University  
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619-594-6778  
[ehsoffice@sdsu.edu](mailto:ehsoffice@sdsu.edu)**



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