



Wildfire Smoke Safety Plan

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1. PROGRAM APPROVAL

- 1.1. San Francisco State University (SFSU) strictly enforces the policies and procedures outlined in this document.
- 1.2. Before they are implemented, the persons listed below must approve any changes to the stated methods.
 - 1.2.1. APPROVED BY: Marc Majewski
 - 1.2.1.1. Title: Director, Environment, Health, and Safety (EHS)
 - 1.2.2. APPROVED BY: Hope Kaye
 - 1.2.2.1. Title: Director, Office of Emergency Services (OES)
- 1.3. The persons above are responsible for implementing this and other health and safety programs.

2. REGULATORY REQUIREMENTS

- 2.1. The California Occupational Safety and Health Administration (Cal/OSHA) regulates Wildfire Smoke under the following regulations:
 - 2.1.1. Title 8, California Code of Regulations (CCR), §3203. Injury and Illness Prevention Program.
 - 2.1.2. Title 8, CCR, §5141.1 Protection from Wildfire Smoke.
 - 2.1.3. Title 8, CCR, §5141.1 Protection from Wildfire Smoke, Appendix B
 - 2.1.4. Title 8, CCR, §5144. Respiratory Protection.
- 2.2. This written program complies with the Cal/OSHA regulations.

3. WILDFIRE SMOKE EVENTS

- 3.1. The Protection from Wildfire Smoke regulation requires employers to provide information to employees when they are exposed to Air Quality of PM 2.5 above 150 due to wildfire smoke.
- 3.2. Management requirement:
 - 3.2.1. Check the current Air Quality Index (AQI) before and periodically during each work shift.
 - 3.2.2. Ensure employees are adequately trained.
 - 3.2.3. Lower employee exposure.
 - 3.2.4. Provide respirators and encourage their use.
- 3.3. This section DOES NOT APPLY TO the following:



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- 3.3.1. Enclosed buildings or enclosures in which a mechanical ventilation system filters the air, and the employer can ensure that windows and doors remain closed.
- 3.3.2. Enclosed vehicles in which a mechanical ventilation system filters the air, and the employer can ensure that windows and doors remain closed.
- 3.3.3. Employees exposed to a current AQI for PM 2.5 of 151 or greater for a total of ONE hour or less during a working shift.
- 3.4. Encourage voluntary respirator usage.
 - 3.4.1. Management will select respirators when necessary to protect employees from smoke inhalation.
- 3.5. When voluntary respirators are available, management will discourage using scarves, bandannas, etc.
- 3.6. Management will require using N95, KN95 or equivalent respiratory protection when necessary.

4. EMERGENCY OPERATIONS CENTER (EOC) ACTIVATION

- 4.1. If the AQI rises above 150 or is predicted to rise about 150 in the next 24-48 hours (as determined by [AirNow.gov](https://www.airnow.gov)), the Emergency Operations Center (EOC) will be notified. It will partially activate to determine the appropriate campus response.
- 4.2. The EOC and Policy Group will weigh the following factors in determining the course of action:
 - 4.2.1. Pre-determined responses according to AQI benchmarks as approved by Policy Group
 - 4.2.2. Day of week, time of day, and length of prediction for poor air quality prediction
 - 4.2.3. Geographic extent of impacted air quality
 - 4.2.4. Crowd-sourced air quality monitors throughout the Bay Area (Purple Air), including campus-based air quality monitor readings
 - 4.2.5. Academic, athletic, or other campus activities planned
 - 4.2.6. Complicating factors such as Covid-19
- 4.3. The EOC will coordinate messaging to the campus community with final approval from the Public Information Officer (PIO) to reflect any campus decisions and updates through periods of impacted air quality.
 - 4.3.1. The EOC will also activate the Residential Life and Housing Branches to ensure residents receive aligned and prompt communications (if different from campus-wide communication).



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- 4.3.2. Communications will be sent from the Office of Emergency Services, except targeted messages (e.g., Residential Life, U Corp), which will come from their responsible entities.

5. THE HEALTH EFFECTS OF WILDFIRE SMOKE

- 5.1. Although wildfire smoke contains many hazardous chemicals, the primary harmful pollutant for people not very close to the fire is particulate matter, the tiny particles suspended in the air.
- 5.2. Particulate matter can irritate the lungs and cause persistent coughing, phlegm, wheezing, or difficulty breathing.
 - 5.2.1. Particulate matter can also cause more severe problems, such as reduced lung function, bronchitis, worsening of asthma, heart failure, and early death.
- 5.3. People over 65 and those with heart and lung problems are the most likely to suffer from serious health effects.
- 5.4. The smallest—and usually the most harmful—particulate matter is called PM2.5 because it has a diameter of 2.5 micrometers or less.

6. THE RIGHT TO OBTAIN MEDICAL TREATMENT WITHOUT FEAR OF REPRISAL

- 6.1. 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.
 - 6.1.1. Employers shall also have adequate provisions made in advance for prompt medical treatment of employees in the event of severe injury or illness caused by wildfire smoke exposure.

7. HOW CAN EMPLOYEES OBTAIN THE CURRENT AIR QUALITY INDEX (AQI)

- 7.1. Various government agencies monitor the air in California and report the current AQI for those places.
 - 7.1.1. The AQI is a measurement of how polluted the air is.
 - 7.1.2. An AQI of over 100 is unhealthy for sensitive people, and an AQI of over 150 is unhealthy for everyone.
- 7.2. Although there are AQIs for several pollutants, Title 8, §5141.1, only uses the AQI for PM2.5.
- 7.3. The easiest way to find the current and forecasted AQI for PM2.5 is to go to AirNow.gov and enter the zip code, town, or city where employees work.



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- 7.3.1. Management will monitor AirNow.gov at www.airnow.gov for current AQI readings.
 - 7.3.1.1. Alternatively, Management can use www.purpleair.com to monitor the AQI.
- 7.3.2. The current AQI is also available at fire.AirNow.gov, an interactive map providing information about fires and smoke plumes.
- 7.3.3. You can also visit your local air district's website.
- 7.3.4. Employees who do not have access to the internet can contact their employer for the current AQI.
- 7.3.5. The EPA website enviroflash.info can transmit daily and forecasted AQIs by text or email for particular cities or zip codes.

8. TWO-WAY COMMUNICATION

- 8.1. Employers shall alert employees when the air quality is harmful and what protective measures are available.
- 8.2. Employers shall encourage employees to inform their employers if they notice the air quality is worsening or if they are suffering from any symptoms due to the air quality without fear of reprisal.
- 8.3. Communication can be any or all of the following:
 - 8.3.1. Email
 - 8.3.2. Phone call
 - 8.3.3. Text, or
 - 8.3.4. Verbal

9. THE EMPLOYER'S METHODS TO PROTECT EMPLOYEES FROM WILDFIRE SMOKE

- 9.1. Employers shall take action to protect employees from PM2.5 when the current AQI for PM2.5 is 151 or greater.
- 9.2. Examples of protective methods include:
 - 9.2.1. Locating work in enclosed structures or vehicles where the air is filtered.
 - 9.2.2. Changing procedures, such as moving workers to a place with a lower current AQI for PM2.5.
 - 9.2.3. Reducing work time in areas with unfiltered air.



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9.2.4. Increasing rest time and frequency and providing a rest area with filtered air.

9.2.5. Reducing the physical intensity of the work helps lower breathing and heart rates.

10. IMPORTANCE, LIMITATIONS, AND BENEFITS OF USING A RESPIRATOR WHEN EXPOSED TO WILDFIRE SMOKE

10.1. Respirators can protect employee health by reducing exposure to wildfire smoke when properly selected and worn.

10.1.1. Respirator use can be beneficial even when the AQI for PM2.5 is less than 151 to provide additional protection.

10.2. When the current AQI for PM2.5 is 151 or greater, employers shall provide their workers with proper respirators for voluntary use.

10.2.1. If the current AQI exceeds 500, respirator use is required, except in emergencies.

10.3. A respirator should be used properly and kept clean.

10.4. The following precautions shall be taken:

10.4.1. Employers shall select respirators certified for protection against specific air contaminants at the workplace.

10.4.2. Respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH) of the U.S. Center for Disease Control and Prevention.

10.4.3. A label or statement of certification should appear on the respirator or respirator packaging.

10.4.4. It will list what the respirator is designed for (particulates).

10.5. Surgical masks or items worn over the nose and mouth, such as scarves, T-shirts, and bandannas, will not protect against wildfire smoke.

10.5.1. Read and understand the manufacturer's instructions on the respirator's use, care, and replacement, along with any warnings regarding the respirator's limitations.

10.5.1.1. If the respirator is reusable, read and understand the instructions for cleaning and maintenance.

10.5.1.2. The manufacturer's instructions must be followed except for medical evaluations, fit testing, and shaving of facial hair, which



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They are recommended but not required for the voluntary use of filtering facepiece respirators.

10.5.2. Do not wear respirators in areas where the air contains contaminants for which the respirator is not designed.

9.5.2.1. A respirator designed to filter particles will not protect employees against gases or vapors and will not supply oxygen.

10.5.3. Employees should keep track of their respirators to avoid mistakenly using someone else's.

10.6. Employees with heart or lung problems should ask their healthcare provider before using a respirator.

11. HOW TO PROPERLY PUT ON AND USE THE RESPIRATORS PROVIDED BY THE EMPLOYER

11.1. A tight seal must be around the face to get the most protection from a respirator.

11.1.1. A respirator will provide much less protection if facial hair interferes with the seal.

11.1.2. Loose-fitting powered air-purifying respirators may be worn by people with facial hair since they do not have seals affected by facial hair.

11.2. The proper way to put on a respirator depends on the type and model of the respirator.

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

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

11.3.2. Pinch the metal part (if there is one) of the respirator over the top of the nose to fit securely.

11.4. 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.

11.4.1. Adjust the respirator if air leaks between the seal and the face.

11.4.2. The more air leaks under the seal, the less protection the user receives.

11.5. Respirator filters should be replaced if they become damaged, deformed, dirty, or difficult to breathe through.

11.5.1. Filtering facepiece respirators are disposable respirators that cannot be cleaned or disinfected.



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- 11.5.2. A best practice is to replace filtering facepiece respirators at the beginning of each shift.
- 11.6. If you have symptoms such as difficulty breathing, dizziness, or nausea, get medical help immediately.

12. TRAINING

- 12.1. Employees will be trained in the proper use (donning and doffing (putting on and taking off)) of the N95, KN95, or equivalent mask.
- 12.2. Employees will be trained to replace if the mask becomes damaged, deformed, dirty, or difficult to breathe through.

13. REVISIONS

- 13.1. Generated:
 - 13.1.1. May 19, 2021
- 13.2. Reviewed/Revised:
 - 13.2.1. May 22, 2021
 - 13.2.2. June 4, 2021
 - 13.2.3. August 30, 2022
 - 13.2.4. August 11, 2023
 - 13.2.5. March 11, 2024