



# Wildfire Smoke Exposure – Employer Training Guide

This guide, in conjunction with the training poster, will help you to provide training on wildfire smoke exposure to your workers. The training is designed to be in compliance with Cal/OSHA General Industry Safety Orders, Title 8, Section 5141.1, “Protection from Wildfire Smoke,” which went into effect on July 29, 2019.

## 1. Health Effects of Wildfires

**Say: Wildfires affect air quality. This is true even if the fire does not seem close by.**

- During a wildfire, we can clearly see that the air becomes dark and it has a strong smell. It is because the air is full of harmful chemicals and particles from the things being burned: trees, vegetation, structures, and everything else in its path.
- The size of the particles in the air is so small that compared with the diameter of a human hair, the hair would look like a thick pole. They are so small that we cannot see them with our eyes. We know they are there because the air changes color or becomes hazy, but we are not able to distinguish each of the particles.
- The size of the particles is important to us because those that are very small (PM2.5) can enter our blood through the lungs and affect our health. *(Point to the image of the hair and the smallest particles on the poster.)*

**Say: Your health can be affected by breathing in wildfire smoke.**

- Symptoms may include: burning eyes, runny nose, chest pain, fatigue, coughing, wheezing, difficulty breathing, worsening of asthma, and a rapid heartbeat. *(Point to symptoms on poster.)*
- Wildfire smoke can negatively impact everyone, but some people have a higher risk of experiencing symptoms, such as people over 65, pregnant women, people with heart and lung problems, and people with asthma, diabetes, or chronic bronchitis. If you suffer from any pre-existing conditions or are pregnant, be sure to check with a healthcare provider before you wear a respirator.
- When there is wildfire smoke, pay special attention to your body and tell your supervisor if you are feeling any smoke-related symptoms. Do not wait until it is an emergency.

## 2. Monitoring the AQI for PM2.5

**Say: Air quality is reported to the public using a scale called the Air Quality Index or AQI.**

- There are different categories in the scale, from good to hazardous, based on how polluted the air is and who is most likely to be affected. *(Point to the scale on the poster.)*
- The way we will monitor the air in this area is *(Describe the method you will use to monitor AQI)*. You can also look up the AQI on your phone on the [airnow.gov](http://airnow.gov) website or app.
- During a wildfire event, we will monitor the air quality at the start of each shift and will continue to monitor while we are working, but it is important that you let us know if you believe the air quality is worsening or if you begin to feel sick or have difficulty breathing.
- The air is considered unhealthy when the AQI reaches 151, the unhealthy level—red in this chart. *(Point to AQI 151 on the poster.)* It is recommended that outdoor workers, like us, use a respirator to filter the air and reduce the number of unhealthy particles we breathe in.
- A respirator is made of filtering material able to stop some of the small particles resulting from a wildfire. The minimum recommended level of filtration is N95, meaning that it filters 95% of particles.
- We will give you a respirator when wildfire smoke causes the AQI to reach 151. The use of a respirator is voluntary, but we encourage you to use one to reduce your risk of being affected by the smoke while working. *(Point to image of the respirator on the poster.)*
- When the AQI reaches or exceeds 500, we will either stop work or respirator use will be required. *(Point to AQI 500 on the poster.)*



- Bandanas, cloth masks, and surgical masks, such as those used to prevent the spread of COVID-19, will not stop the small particles because they are not tightly fitted to the face and the weave of the fabric is too large. Even a bandana folded two or more times does not protect you. *(Point to images of the bandana and surgical mask on the poster.)*

### 3. Wearing a Respirator

**Say:** For a respirator to work, it must be worn properly.

- *(Demonstrate the following instructions, then distribute respirators and allow workers to try themselves.)*
- Cup the respirator in your hand with the metal nose piece at your fingertips.
- Place the respirator under your chin, with the metal nose piece up.
- Pull the bottom strap over your head and place it on the lower part of your head, below your ears.
- Pull the top strap over your head and place it on the top of your head.
- Press gently on the nose piece to adjust it to your nose.
- Place both hands gently on the mask and breathe in and out to check for air leakage around your face. If the respirator does not sink a little when you breathe in, it is not sealed and will not protect you properly. Adjust the straps and the nose piece.
- If you have facial hair that comes between the respirator and your face, the respirator will not seal around your face effectively. *(Point to the images of facial hair on the poster.)*

**Say:** We are giving you disposable respirators that should be discarded after each use.

- It is not recommended to use the respirator more than 8 hours.
- If you notice that your respirator looks dark, dirty, or if you can smell smoke, ask for a new one.
- Do not share respirators with other people.
- Respirators can be uncomfortable and you may need time to adjust to wearing it while you work. However, it is important to use it so you can protect yourself from harmful smoke particles.
- Wearing a respirator will reduce your risk but you still need to pay attention to how you feel. Report any symptoms and let us know if you feel the air quality is worsening.

### 4. The Worksite & Reminders

**Say:** If you feel the symptoms of wildfire smoke exposure that we discussed earlier:

- Tell your supervisor immediately. We may recommend that you slow down or rest in an area with filtered air, such as a car or a nearby facility.
- If you have symptoms such as difficulty breathing, dizziness, or nausea, seek medical attention and call 9-1-1.

**Say:** When the AQI is 151 or greater due to wildfire smoke, we may implement the following:

- Relocate your work to *(Describe)*.
- Modify your work schedule *(Describe)*.
- Reduce your work intensity by *(Describe: for example, slow work pace)*.
- Schedule additional rest periods *(Describe: preferably in a building, structure, or vehicle where the air is filtered)*.

**Say:** Do you have any questions?