**Protection from Wildfire Smoke:**

**Health and Safety of Employees Exposed to Wildfire Smoke**

**Purpose:**

The purpose of the following policy is to mitigate employee exposure to wildfire smoke and other pollutants when working outdoors.

**Background**

[Organization Name] employees may be asked to work outdoors and in conditions where they may be exposed to wildfire smoke and other pollutants considered to be harmful to their health. Employees are offered the opportunity and may decline the opportunity to perform work outdoors when they feel conditions may be harmful to their health without any retribution from [Organization Name] management. The following policy meets or exceeds regulatory requirements located in [Title 8 of the General Industry Safety Orders, Article 107, Section 5141.1](https://www.dir.ca.gov/title8/5141_1.html), also known as Cal/OSHA Standard 5141 Protection from Wildfire Smoke.

**Policy**

When the Air Quality Index (AQI) PM2.5 is 151 or greater and [Organization Name] has a reasonable expectation that employees may experience outdoor wildfire smoke exposure for a period of **more than** 1 hour per shift, [Organization Name] will implement the following practices:

1. Prior to each workday and shift, management will check the AQI forecast via the [United States, Environmental Protection Agency AirNow](https://www.airnow.gov/) (U.S. EPA AirNow) and then communicate the AQI and its associated Levels of Health Concern to employees in a pre-shift huddle using the following scale:

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

1. Specify protective measures available to the employees to reduce their wildfire smoke exposure by including:
   1. Administrative Controls
      1. Rotating employees between working outdoors and inside
      2. Limiting the length of employee shifts
      3. Transferring employees between locations where the AQI is not as hazardous
      4. Offering less strenuous work activities
      5. Increase the number of rest breaks offered
   2. Voluntary use of Personal Protective Equipment (PPE)–[Organization Name] offers all employees exposed to wildfire smoke N95 filtering facepiece respirators. N95 respirators are offered at any time on a voluntary basis and mandatorily offered when the AQI PM2.5 is 151 or greater but not more than 500. All N95 respirators are approved by the National Institute for Occupational Safety and Health (NIOSH).
2. Employees are encouraged to notify [Organization Name] management anytime they feel the air quality is progressively worsening during their shift and/or if they experience any adverse symptoms as a result of exposure such as difficulty breathing, asthma attacks, chest pain, etc.

**Mandatory Training**

All employees, regardless of the AQI levels and potentially exposed to Wildfire Smoke will receive the following training as required by Cal/OSHA Protection from Wildfire Smoke. Training will be provided in a language that is readily understandable by the employees being trained.

1. The health effects of wildfire smoke
   1. 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;” these are the tiny particles suspended in the air.
   2. 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.
   3. People over 65 and people who already have heart and lung problems are the most likely to suffer from serious health effects.
   4. The smallest and usually the most harmful particulate matter is called PM2.5, they have a diameter of 2.5 micrometers or smaller.
2. The right to obtain medical treatment without fear of reprisal
   1. [Organization Name] shall allow any employee that shows signs of injury or illness due to wildfire smoke exposure to seek medical treatment, and may not punish affected employees for seeking such treatment.
   2. [Organization Name] 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.
3. How employees can obtain the current Air Quality Index (AQI) for PM2.5
   1. 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.
   2. Although there are AQI’s for several pollutants, Cal/OSHA Standard 5141 Protection from Wildfire Smoke only uses the AQI for PM2.5. [Organization Name] program meets the regulatory requirements of the standard.
   3. The easiest way to find the current and forecasted AQI for PM2.5 is to go to [AirNow](https://www.airnow.gov/) and enter the zip code of the location where you will be working. The current AQI is also available from the [U.S. Forest Service](https://sites.google.com/firenet.gov/wfaqrp-airfire-tools/) and through [Local Air Districts](https://ww3.arb.ca.gov/capcoa/dismap.htm).
   4. Employees who do not have access to the internet can contact their manager for the current AQI. The EPA website, [EnviroFlash](http://www.enviroflash.info/), can transmit daily and forecasted AQIs by text or email for particular cities or zip codes.
4. The requirements in Cal/OSHA Standard 5141 Protection from Wildfire Smoke
   1. If an employee may be exposed to wildfire smoke, [Organization Name] is required to find out the current AQI applicable to the worksite. If the current AQI for PM2.5 is 151 or more, [Organization Name] is required to:
      1. Check the current AQI prior to each shift and periodically during each shift
      2. Provide training
      3. Lower employee exposures
   2. Provide respirators and encourage their use.
5. [Organization Name] maintains a two-way communication system.
   1. [Organization Name] shall alert employees when the air quality is harmful and what protective measures are available to those employees that may be exposed.
   2. [Organization Name] encourages employees to inform their manager 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.
   3. The employer's communication system includes:
      1. Direct communication between employees and their manager prior to commencing work activities.
      2. Using company email.
      3. Texting and/or telephone conversations.
6. [Organization name] methods to protect employees from wildfire smoke when the AQI for PM2.5 is 151 or greater include:
   1. Locating work in enclosed structures or vehicles where the air is filtered if at all possible.
   2. Changing procedures such as moving workers to a place with a lower current AQI for PM2.5 if possible.
   3. Reducing the time that at an employee is exposed to outdoor smoke.
   4. Increasing rest time and frequency, and providing a rest area with filtered air if possible.
   5. Reducing the physical intensity of the work to help lower the breathing and heart rates.
7. The importance, limitations, and benefits of using a respirator when exposed to wildfire smoke.
   1. Respirators can be an effective way to protect employee health by reducing exposure to wildfire smoke, when they are properly selected and worn.
   2. Respirator use can be beneficial even when the AQI for PM2.5 is less than 151, to provide additional protection.
   3. When the current AQI for PM2.5 is 151 or greater, [Organization Name] shall provide affected employees with proper NIOSH Approved N95 Respirator for voluntary use.
   4. Mandatory use of the N95 NIOSH Approved Respirator is required anytime the AQI PM2.5 is 500 or greater.
   5. N95 Respirators will be discarded at the end of each shift and a new N95 Respirator will be provided at the beginning of each shift as needed and for affected employees.

**Respirator Use Precautions**

[Organization Name] requires that the following precautions be followed by all employees exposed to Wildfire Smoke and/or issued an N95 Respirator.

1. Only NIOSH approved respirators certified for protection against the specific air contaminants at the workplace will be issued. In the case of wildfire smoke exposure this means a NIOSH Approved N95 Respirator.
2. 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).
3. Surgical masks or items worn over the nose and mouth such as scarves, T-shirts, and bandannas are completely unacceptable and will not be used as PPE to protect the employee from exposure to wildfire smoke. The N95 filtering facepiece respirator is the minimum level of protection for wildfire smoke.
4. 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.
5. The manufacturer's instructions for medical evaluations, fit testing, and shaving must also be followed. These are not required for voluntary use (e.g. AQI PM2.5 is 151 or greater but equal to or less than 500).
6. Do not wear respirators in areas where the air contains contaminants for which the respirator is not designed for. A respirator designed to filter particles will not protect employees against gases or vapors, and it will not supply oxygen.
7. Employees should keep track of their respirator so that they do not mistakenly use someone else's respirator.
8. **Employees who have a heart or lung problem should consult with their doctor before using a respirator to see if it is safe to do so**.
9. How to properly put on, use, and maintain the respirators provided by the employer. Also referred to as “donning and doffing.”
   1. 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. Therefore, employees must be clean shaven to wear a respirator.
   2. The proper way to put on a respirator depends on the type and model of the respirator.
   3. For N95 or other filtering facepiece respirator masks that are made of filter material:
      1. Place the mask over the nose and under the chin, with one strap placed below the ears and one strap above.
      2. Pinch the metal part (if there is one) of the respirator over the top of the nose so it fits securely.
      3. Check how well it seals to the face by following the manufacturer's instructions for user seal checks.
      4. 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.
      5. Respirator filters should be replaced if they get damaged, deformed, dirty, or difficult to breathe through. N95 respirators will be discarded at the end of the day or after use.
      6. [Organization Name] will provide replacements prior to each shift as needed.

*This Alliant Risk Control Consulting fact sheet is not intended to be exhaustive. The discussion and best practices suggested herein should not be regarded as legal advice. Readers should pursue legal counsel or contact their insurance providers to gain more exhaustive advice.*