

September 30, 2019

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*Sent Via Email*

Re: Comments to Proposed Revisions to Emergency Regulation

We would like to extend our appreciation to the Division for providing us with the opportunity to provide comments during the meeting on August 27th and through September 30, 2019. We are also grateful to the Division staff for their thorough and expeditious effort in drafting the temporary emergency standard. While the temporary standard is not perfect, we appreciate the fact that it is based on the Air Quality Index (AQI), that it clarifies employer obligations, and provides basic protections for workers while exposed to fine particulate matter (PM2.5) in wildfire smoke.

We appreciate the tremendous amount of work done by all stakeholders and government agencies involved in creating the temporary emergency standard and proposed revisions to the emergency regulation (Draft Language dated August 13, 2019). As fire season is already upon us, it is important to move the process along towards adopting a strong and effective permanent standard to protect all workers in all industries from exposure to wildfire smoke.

The Draft Language dated August 13, 2019 includes two sets of proposed changes: (1) minor changes that would be made to the emergency regulation as part of adoption of a permanent rule and (2) substantive changes that would be considered for later rulemaking with no specific deadline. We are concerned that delaying critical elements included in the second set of changes would leave many workers vulnerable to hazardous working conditions with respect to wildfire smoke. The Division should incorporate these critical elements into the draft permanent regulation and not put them off until some later date, which could possibly be several years from now.

Your consideration and inclusion of much of our recommended language from our previously submitted written and oral comments will help strengthen protections for workers and provide clarity for employers. We are particularly encouraged by the inclusion of suggested language in the following areas:

- Scope: AQI threshold of 101 replacing AQI for PM2.5 151
- Requirement for full respiratory protection program threshold of 301 replacing AQI for PM2.5 501

These key changes are shared priority areas of concern for us and our allies and reflect a commitment by the agency to move towards a strong and workable permanent wildfire smoke standard.

However, while we are encouraged by these proposed inclusions, we are deeply disappointed that these changes are only considered for later rulemaking with no specific deadline, as indicated in the Draft Language dated August 13, 2019. Workers will be left vulnerable if they only receive protection from the temporary emergency standard or the temporary emergency standard with minor changes adopted as the permanent standard.

Several comments were made at the advisory committee meeting on August 27, 2019 by industry which alluded to altering the advisory process so that it is more of an ‘interactive dialogue’ between the agency and stakeholders. We welcome and encourage a process that involves including the perspectives and experiences of employers, health professionals, workers, worker advocates, labor, and worker centers. However, we believe an alternate process as suggested by industry at the meeting would at this time undermine the mandate of Labor Code Section 147.1(c), which requires that the Division “on occupational health issues not covered by federal standards maintain surveillance, **determine the necessity for standards, develop and present proposed standards to the board.**” It also unnecessarily delays the adoption of the much needed permanent rule. Furthermore, the argument that this process must be ‘consensus’ driven is also misplaced and an inaccurate interpretation of the Board’s responsibility and mandate.

If the desire behind changing or reformatting the process is to yield consensus, it’s important to note that consensus is not a legal requirement. The goal of a ‘consensus’ regulation can in fact be inconsistent with the Board’s responsibility and mandate under Labor Code section 144.6 to adopt “that standard which most adequately assures, to the extent feasible, that no employee will suffer material impairment of health or functional capacity even if such employee has regular exposure to a hazard regulated by such standard for the period of his working life.”

The Labor Code is clear that:

standards under this section **shall be based upon research, demonstrations, experiments,** and such other information as may be appropriate. In addition to the attainment of the highest degree of health and safety protection for the employee, other considerations **shall be the latest available scientific data in the field, the reasonableness of the standards, and experience gained under this and other health and safety laws.** Whenever practicable, the standard promulgated shall be expressed in terms of objective criteria and of the performance desired. (emphasis added)

The Labor Code does not require a ‘consensus’ regulation, and permits it only insofar as it meets the standards of Section 144.6. Although ‘consensus’ was a word used in the past for the pre-rulemaking advisory process, it was discontinued a long time ago. It is no longer part of the informal pre-rulemaking advisory process. During the advisory committee process for health regulations, generally the Division develops the standard with input from stakeholders. There is no ‘consensus’ required in the regulatory standard development.<sup>1</sup> We are further concerned about the comments made during the advisory committee meeting that the current drafts be scrapped and the process start over. This would unnecessarily stall the adoption of a protective

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<sup>1</sup> Description of Occupational Safety and Health Standards Board (August 2002) <<https://www.dir.ca.gov/oshsb/aboutOshsb.html>>( as of March 10, 2019); see also “Steps to Develop an Occupational Health Standard” ( November 2016) <<https://www.dir.ca.gov/dosh/steps-to-develop-an-ohs.html>> (as of March 10, 2019).

permanent standard placing workers' health at risk. While an advisory process can be invaluable in developing a standard, the Division is ultimately responsible for proposing regulations that meet the requirements in Labor Code section 144.6 to protect employee health.

We believe key substantive changes must be made sooner rather than later in order to ensure workers' health is prioritized and protected and employers understand their responsibilities and obligations. We suggest changes under the following sections: **(1) Scope; (2) Where the AQI is greater than 100 and less than 151; (3) Identification of harmful exposure; (4) Communication; (5) Training and instruction; (6) Control of harmful exposure to employees - Engineering and administrative controls; (7) Control by respiratory protective equipment; (8) Control of harmful exposures - Exception for emergency response; (9) Appendix B; and (10) Suggested Spanish Language Edits.**<sup>2</sup>

### **(1) SCOPE**

The trigger for application of this section to a workplace must be a local AQI for PM2.5 of 101.

A trigger at this level, rather than the higher current trigger AQI of 151 is needed because the warning levels in the AQI are based on protecting the general public who spend little time outdoors, not workers who are performing strenuous outdoor work for 8 or more hours a day, and therefore have greater exposures. With relation to PM2.5 many experts agree that there is not a threshold below which health impacts do not occur.<sup>3</sup> In addition, a significant proportion of workers are sensitive to wildfire smoke because they have asthma or other common health conditions. Known health impacts associated with wildfire smoke PM2.5 include: an increase in chronic obstructive pulmonary disease symptoms scores, asthma symptoms, increased corticosteroid and rescue inhaler use.<sup>4</sup>

Although these serious impacts are known, there are other questions regarding exposure and the impacts on vulnerable populations over larger periods of time that remain and require further research.<sup>5</sup> Given that we know the current health impacts experienced by sensitive populations when exposed to levels of AQI for PM2.5, the standard adopted must ensure all workers receive protection, especially sensitive workers who will likely suffer long term consequences. This would not be something a worker could seek out as a "workplace accommodation" under antidiscrimination law, as suggested by some industry representatives during the Advisory Committee meeting on August 27th. A cornerstone of health and safety laws is prevention and the mandate is clear that health standards must leave no employee at risk of material impairment. A workplace accommodation under FEHA, first would be invasive to a worker with a pre-

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<sup>2</sup> All suggested additions to language are *underlined and italicized*. Language we suggest for deletion is ~~strike through~~.

<sup>3</sup> See, e.g., U.S. EPA, Summary of Statements Related to PM Threshold Issue, <<https://www3.epa.gov/ttnecas1/regdata/Benefits/thresholdstds.pdf>> (as of Sept. 9, 2019).

<sup>4</sup> Sutherland, E.R., Make, B.J., Vedal, S., Zhang, L., Dutton, S.J., Murphy, J.R., Silkoff, P.E., 2005. Wildfire smoke and respiratory symptoms in patients with chronic obstructive pulmonary disease. *J. Allergy Clin. Immunol.* 115, 420–422; Elliott, C.T., et. al. Time series analysis of fine particulate matter and asthma reliever dispensations in populations affected by forest fires (2013). *Environ. Health Glob. Access Sci. Source* 12, 11.

<sup>5</sup> See e.g. Black, et.al, Wildfire Smoke Exposure and Human Health: Significant Gaps in Research for a Growing Public Health Issue (2017). *Environ Toxicol Pharmacol.* Oct; 55: 186-195.

existing health condition and would be infeasible to implement in a timely manner, and, second, requiring a worker to seek out a workplace accommodation would be an ineffective solution to a larger public policy issue.

Therefore, this section should apply whenever the AQI for PM2.5 exceeds the threshold of PM2.5 of 100. Vulnerable workers should not have to wait until the AQI for PM2.5 surpasses 150 before receiving some minimal protections from a standard.

In addition to this change in scope, we recommend a change to “exposure to wildfire smoke is reasonably anticipated.” We believe the below suggested language will help the Division in enforcement of this standard.

**We recommend the following:**

(a)(1) (B) ~~The employer should~~ *It is* reasonably anticipated that employees may be exposed to wildfire smoke.

We are also concerned about the exemptions in draft subsections (a)(2)(A) and (a)(2)(B) since there are no criteria in the draft regarding the design of building and vehicle ventilation systems. Also, the draft does not address the maintenance and operational status of ventilation systems. Without effective filtration, air inside buildings and vehicles may be as, or even more contaminated than the area AQI indicates. Title 8 section 5142 contains minimal maintenance requirements for building ventilation systems but we believe that to exempt indoor workplaces out of the standard there must be a demonstration of effective ventilation and filtration. In addition, the exemption in (a)(2)(B) requires that windows to the cabs of vehicles be maintained closed, which may not be safe under some operating conditions.

**(2) WHERE THE AQI IS GREATER THAN 100 AND LESS THAN 151**

Under section (c), protections which are triggered at AQI for PM2.5 of greater than 100 should be the same as the protections required at 151. Workers who have health conditions that make them sensitive to wildfire smoke need the protections of training and the provision of respirators at this threshold.

As currently written, the protections proposed in this section are very minimal and do not provide that baseline minimum protection for workers, especially for sensitive workers. For example, in this section there is no requirement for training, it simply requires employers to “make Appendix B available to employees.” The lack of a training requirement creates a risk especially for those workers who have limited to no literacy skills. When AQI for PM2.5 reaches an unhealthy level, workers who could be impacted must be trained on such health consequences. Simply “making Appendix B available” does not adequately inform workers. While we recommend that the general threshold for this standard be lowered to 101, if this stratification remains in the standard, we would strongly recommend at a minimum requiring training under this section.

Additionally, most workers will not request respirators and it is unfair to make workers who are sensitive to smoke request respirators so **we recommend this change:**

(c) Where the AQI for PM2.5 is greater than 100 and less than 151, the employer shall:  
(3) Provide a sufficient number of respirators to allow voluntary use by all employees. ~~Provide respirators to employees upon request.~~

### **(3) IDENTIFICATION OF HARMFUL EXPOSURE**

Employers need to identify harmful exposures before workers are expected to report and begin work so that appropriate protection can be identified and provided at the beginning of the work shift. If the AQI is at a harmful level before a shift starts and the employer has not yet identified the hazard or identified which protective equipment and training is necessary before the workshift, then when workers start work they could be exposed. Employers need to be prepared to provide workers with the bare minimum training, information and protection necessary to adequately protect themselves. Additionally, we'd caution that when the identification of the harmful exposure happens before the start of other work tasks, employers should not then require workers to arrive early before their shifts to receive training and information related to the hazard and their work, off the clock, and not get paid for that work. Thus, we recommend the following language:

(d) Identification of harmful exposures. The employer shall determine employee exposure to PM2.5 for worksites covered by this section before each shift. Training and instructions about protective measures shall be provided at the beginning of the shift.

### **(4) COMMUNICATION**

We appreciate the change to language and manner in this section. This is important to ensure that workers who have limited or no literacy skills, or limited or no English language skills receive the information they need about how to inform their employer about wildfire smoke hazards.

With respect to making the points of communication clearer, the regulation should include a requirement for providing prompt access to medical treatment, as detailed in Appendix B and that the employer should have and explain a plan for evacuation if needed.

#### **We recommend the following:**

(e)(1)(C)

The right to obtain medical treatment without fear of reprisal and the employer's procedures for responding to signs and symptoms of wildfire smoke exposure including but not limited to how first aid measures and emergency medical services will be provided.

The language we proposed is similar to the requirement in the outdoor heat regulation, Title 8 section 3395(f)(2).

## **(5) CONTROL OF HARMFUL EXPOSURE-ADMINISTRATIVE, AND ENGINEERING CONTROLS**

Although much of the discussion in the advisory meetings has focused on respirator use, we believe that the most important means of reducing employee exposure to harmful wildfire smoke is to relocate work not essential to emergency response to areas that are less impacted by smoke, or by providing filtered air to employee work areas.

Administrative controls should include requirements for hourly rest periods and where feasible, enclosed rest areas with effective filtration. Workers should not have to wait until their meal or rest breaks to get reprieve while working in conditions when the AQI is unhealthy. Furthermore, even if workers are encouraged to take breaks, workers who are particularly vulnerable to workplace abuses, such as undocumented workers, workers who don't speak English, or workers of color, may not take advantage of their breaks, unless the employer is required to provide them. During wildfire smoke exposure a relief period will only be an effective mitigating measure if 1) it is triggered when the AQI reaches the indicated threshold, ideally at 101, 2) the employer is required to provide the relief period and 3) workers receive training on their right to a relief period, as well as the triggering AQI and the health implications of failing to take the relief break.

Workers should at minimum have access to meal, rest, and relief periods in enclosed areas with effective filtration of PM2.5. Workers should not be forced to take their meal and rest breaks in conditions where respirator use is necessary. Practically, if you are taking a meal or rest break, voluntarily using your respirator becomes very difficult, especially if you are trying to eat or drink water. Additionally, one study compared the health benefits and economic costs to homes with indoor air filtration interventions among mortality outcomes. The study, although related to a residential setting, showed reduced negative health impacts, measured by a reduced likelihood of hospital admissions, and benefits exceeding costs among non-portable air filter interventions.<sup>6</sup> Although the study was completed in a different context, one could reasonably infer that the benefits will outweigh costs under these circumstances as well, especially given the amount of time workers spend at their place of employment. A potential effective way to ensure workers receive some protection while taking their rest or meal break is by having access to a break and meal setting that has effective filtration of PM2.5. Employers must demonstrate this is not feasible before denying this level of protection to workers.

### **We recommend these additions:**

(g)(3) Administrative Controls. Whenever engineering controls are not feasible or do not reduce employee exposures to PM2.5 to less than a current AQI of 101, the employer shall implement administrative controls, if practicable, such as relocating work to a location where the current AQI for PM2.5 is lower, changing work schedules, reducing work intensity, or providing additional rest periods. *A relief period of 10 minutes shall be required after each hour of work when AQI due to wildfire smoke is 101 or greater because of the added strain of working in smoky conditions.*

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<sup>6</sup> Fisk, W.J. et.al, Health benefits and costs of filtration interventions that reduce indoor exposure to PM2.5 during wildfires (2017). *Indoor Air* 27(1):191-204.

Enclosed rest and meal areas with effective PM 2.5 filtration must be provided unless demonstrated not to be feasible.

## **(6) TRAINING AND INSTRUCTION**

The regulation should specify that training must be in-person and completed before an employee begins other work tasks where PM2.5 air levels are unhealthy for sensitive groups due to smoke from wildfires. Training should also be modeled on the outdoor heat illness prevention regulation and should require a brief pre-shift meeting each day for review on days when PM2.5 air levels exceed AQI 100. Required content of training should be included in the regulation as well as the appendix:

### **We recommend these additions:**

(f) Training and instruction. As required by section 3203, the employer shall provide employees with effective in-person training and instruction at the beginning of the first shift when the AQI is equal to or greater than 100 in a language easily understood by employees. At a minimum, this shall cover:

1) Health effects of wildfire smoke exposure and health conditions that can increase sensitivity to wildfire smoke.

2) The right to obtain prompt medical treatment and the employer's procedures for responding to signs and symptoms of wildfire smoke exposure including but not limited to how first aid measures and emergency medical services will be provided.

3) The employer's procedures for checking the AQI for PM 2.5 and informing employees when the level exceeds 100 and how they can check the AQI.

4) The employer's methods for protecting employees from wildfire smoke exposure

5) Benefits and limitations of using a respirator, including how to put on a respirator, determine when the respirator or filters need to be replaced, how to obtain a replacement respirator, how facial hair can prevent a seal and advice to ask a healthcare provider about any preexisting medical conditions that may be aggravated by working in smoke or wearing a respirator;

6) The employer's two way communication system for i) alerting employees when the air quality is harmful and what protective measures are available and ii) encouraging employees to inform employer or supervisor, without fear of reprisal, if they think air quality is getting worse or if they are suffering any symptoms which may be due to air quality.

This training shall contain the information in Appendix B.

At the start of each shift when the AQI is greater than 100/150, a brief meeting shall be conducted to review wildfire smoke exposure prevention measures and encourage use of respirators.

The proposed language is similar to language in the Outdoor Heat Regulation High Heat Requirements in Title 8 section 3395(e)(5).

## (7) CONTROL BY RESPIRATORY PROTECTIVE EQUIPMENT

The regulation should include a requirement for replacement of disposable filtering facepiece respirators at least at the beginning of each shift. This is important because filtering facepieces get soiled and should be replaced for effective protection. Repeated donning and doffing, as well as storage, may deform the respirator so that it no longer forms a facepiece seal. We recommend this addition:

(g)(4) (A) Control by Respiratory Protective Equipment.

(A) Where the current AQI for PM<sub>2.5</sub> is equal to or greater than ~~100~~<sup>151</sup>, but does not exceed **300** ~~500~~ the employer shall provide **a sufficient number of** respirators to all employees for voluntary use in accordance with section 5144 and encourage employees to use respirators. . . . Respirators shall be cleaned **or replaced as appropriate**, stored, **and** maintained, **and replaced** so they do not present a health hazard to users. Employers shall use Appendix B to this section in lieu of Appendix D to section 5144 for training regarding voluntary use of respirators. *Disposable N95 respirators and other filtering facepiece respirators shall be replaced at minimum at the start of each shift.*

We are disappointed that the threshold for control by respiratory protective equipment requiring a medical evaluation and fit testing remained at over 500 in the Draft Language dated August 13, 2019. This is concerning to us for several reasons. First the AQI that gets reported by EPA tops out at 500 so no one can ever know if it is actually above 500. This will be problematic for enforcement purposes as employers will be unable to verify in real time when the AQI goes above 500. Furthermore, while readings above 500 do occur, there are only two methods that an employer can use to access that information: (1) through historical maps or (2) through their own monitoring. Relying on historical maps does not allow an employer the opportunity to identify harm nor provide the proper protective equipment to mitigate. And having employers rely on their own monitoring could prove to be cost prohibitive, whereas the Airnow information is readily accessible for AQI for PM<sub>2.5</sub> of 300.

Next, according to the EPA, AQI of PM<sub>2.5</sub> between 301 and 500+ are hazardous. Workers who are outside working in these conditions need protection. A respirator with adequate fit test and medical evaluation ensures that they get effective protection. For many workers, who can't take time off work, like low-wage immigrant field workers, landscapers, construction workers and others, they must have access to a respirator that fits them properly and for which they have received a medical evaluation.

We are concerned that if the threshold remains at above 500, then this would undermine current protections workers already receive under current law. We also believe that if using the AQI for PM<sub>2.5</sub> as a benchmark, the trigger for respirator usage with fit testing and medical evaluation should be triggered as soon as the AQI hits 301 and not at the highest level of hazardousness. Federal law requires employers to have a respiratory program where respirators are necessary to protect the health of employees.<sup>7</sup> Under Federal law, an employers' respiratory protection

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<sup>7</sup> 29 C.F.R. § 1910.134(a)(2). (Current through 2019)



program must include, among other things, fit testing and medical evaluation when using a respirator where the workplace atmosphere is hazardous.<sup>8</sup> Wildfire smoke at levels of above 300 AQI for PM2.5 creates a workplace atmosphere that is hazardous. Therefore, respirators at this level must be accompanied by fit testing and medical evaluation. Therefore, we recommend lowering the threshold to above 300 under (4)(B).

Next, the exception to full respiratory protection program for work when exposed to arc flash hazards needs to be clearer and limited to time exposed to arc flash hazard:

**We suggest this revision:**

EXCEPTION to subsection (g)(4)(B): Respirator use is not required ~~if the employer demonstrates that~~ for periods of time in which an employee is performing work in which the employee is exposed to an arc flash hazard, however respirators shall be worn for periods of work when there is no exposure to this hazard. The employer's respiratory protection program shall address when respirators are not to be used due to the arc flash hazard,

Finally, employees (not performing emergency/essential work) should have a right to refuse work when the air is unhealthy due to wildfire smoke. We understand that this would be enforced by the Division of Labor Standards Enforcement. However, we believe it's important to include in the permanent standard, because it provides a regulatory standard for employees to exercise their rights under Labor Code sec. 6311, based on the Division's evaluation of the seriousness of this health risk, and will reinforce workers' awareness of their right to refuse work that is unhealthy.

**(8) Control of harmful exposures- Exception for emergency response**

The exception as drafted is too broad and should be narrowed to operations that come under emergency incident command.

Per our previous comments, the permanent standard should not exclude first responders. Rather the standard should be broadly applied to all outdoor workers in areas impacted by unhealthy levels of wildfire smoke, relying upon but respecting the current Cal/OSHA policies regarding the application and implementation of existing safety regulations within the incident command structure where firefighters and other responders proceed as directed by incident command and as governed by the State Emergency Plan.

Outdoor work should not be allowed within voluntary or mandatory evacuation zones except work permitted by the authority which has ordered the evacuation. Additional protections are needed for workers assisting in evacuations, including procedures for accounting for and maintaining communication between personnel, and procedures for emergency evacuation if the employees' safety is at risk.

**Suggested revision:**

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<sup>8</sup> <<https://www.osha.gov/laws-regs/standardinterpretations/2006-02-06-0>> (as of Aug. 26, 2019).

(g)(1) In emergencies, including rescue and evacuation, subsections(g)(f)(2) and (g)(f)(3) do not apply, and employers shall comply with subsection (g)(f)(4). Emergencies include utilities, communications, and medical operations, when such operations come under an incident command established for the emergency are directly aiding firefighting. or emergency response

## **(9) APPENDIX B**

Suggested edits to Appendix B to make the information presented more accessible to and useful for both employees and employers providing training are attached (additions are in bold and underlined text but deletions are not shown).

We appreciate the Division's efforts in translating the Appendix into multiple languages. For the Spanish version we suggest the following minor revisions. Translations into other languages would also benefit from review by outdoor workers who are native speakers.

We suggest changes where the following words are used in the existing Spanish language versions of the temporary emergency standard and Appendix:

The term 'nocivas' is used to describe 'harmful.' The better word to use is 'dañino.'

The term 'alentar' is used to describe 'encourage.' The better word to use is 'motivar.'

The term 'Bidireccional' is not a very commonly used word. We would encourage describing 'two-way communication,' so that the meaning is clear.

The term 'pronosticos' should be used as opposed to 'pronosticados'

These changes reflect more commonly used words in Spanish making the draft more language accessible.

In closing, we appreciate your efforts in establishing a strong permanent standard to protect workers from exposure to wildfire smoke.

Thank you for your consideration of these comments.

Sincerely,

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Add new Appendix B to new Section 5141.1 to read:

**Appendix B to Section 5141.1. Protection from Wildfire Smoke  
Information to Be Provided to Employees (Mandatory)**

**(a) 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 who already have heart and lung problems are the most likely to suffer from serious health effects. **People who have had asthma attacks or other breathing difficulties from smoke exposure are more likely to suffer from serious health effects on subsequent days of work in the smoke.**

The smallest—and usually the most harmful—particulate matter is called PM2.5 because it has a diameter of 2.5 micrometers or smaller.

**(b) The right to obtain medical treatment without fear of reprisal and employer’s procedures for responding to signs and symptoms of exposure to wildfire smoke**

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 **first aid and** medical treatment of employees in the event of injury or illness caused by wildfire smoke exposure.

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

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 about wildfire smoke only uses the AQI for PM2.5.

The easiest way to find the current and forecasted AQI for PM2.5 is to go to [www.AirNow.gov](http://www.AirNow.gov) and enter the zip code **or closest city name** of the location where you will be working.

**(d) Wildfire smoke protection requirements in Title 8, section 5141.1 .**

If employees may be exposed to wildfire smoke, then the employer is required to find out the current AQI applicable to the worksite. **If the current AQI for PM2.5 is more than 100 and less than 151, the employer is required to:**

**(1) Use a system that informs employees that the air is unhealthy for sensitive people.**

**(2) Make this appendix available to employees.**

**(3) Provide respirators for employees to use if they choose to.**

If the current AQI for PM2.5 is 101 or more, the employer is required to:

(1) Check the current AQI ~~at the start of~~ ~~before~~ and periodically during each shift.

(2) Provide training to employees.

(3) Lower employee exposures.

(4) Provide respirators and encourage their use.

**(5) When the AQI for PM 2.5 exceeds 300, employers must follow the requirements in the respiratory protection standard (Section 5144) for respirator use, which include a written program and training, medical evaluation and fit testing for each employee.**

**(e) The employer's methods to protect employees from wildfire smoke.**

Employers shall take action to protect employees from PM2.5 when the current AQI for PM2.5 is 151 or greater. Examples of protective methods include:

(2) Locating work in enclosed structures or vehicles where the air is filtered.

(3) Changing procedures such as moving workers to a place with a lower current AQI for PM2.5.

(4) Reducing work time in areas with unfiltered air.

(5) Increasing rest time and frequency, and providing a rest area with filtered air.

(6) Reducing the physical demands of the work such as by reducing pace of work, to help lower the breathing and heart rates.

The employer's control system at this worksite is: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**(f) 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.

**When the AQI for PM 2.5 exceeds 300, employers must follow the requirements in the respiratory protection standard (Section 5144) for respirator use, which include a written program and training, medical evaluation and fit testing for each employee. When the AQI is less than 301 but greater than 100, employers must provide workers with NIOSH approved respirators under the voluntary use exception, which requires the training in this appendix, but does not require medical evaluation or fit-testing for use of filtering facepiece (disposable) respirators.**

A respirator should be worn properly and kept clean. **Disposable filter filtering facepiece “N95” respirators should be replaced when they become hard to breathe through or too loose because of dirt or sweat. A best practice is to replace filter filtering facepiece respirators should be replaced at the beginning of each shift.**

NIOSH, the National Institute for Occupational Safety and Health of the U.S. Center for Disease Control and Prevention certifies respirators. A filtering facepiece respirator will have a **label that says “NIOSH” and a certification number and a model number.**

Surgical masks or items worn over the nose and mouth such as scarves, T-shirts, and bandanas will not provide protection against wildfire smoke. An N95 filtering facepiece respirator, shown in the image below, is the minimum level of protection for particles in wildfire smoke.

**Manufacturers provide instructions on the respirator’s use, maintenance, cleaning, and care, along with any warnings regarding the respirator’s limitations. The manufacturer’s instructions must be followed except medical evaluations, fit testing, and shaving of facial hair, which are should also be followed, although doing so is recommended but not required by Title 8, section 5141.1 for voluntary use of filtering facepiece respirators when the AQI is 300 or less. Shaving is recommended because respirators must fit tightly to the face to filter the air, and facial hair interferes with that fit.**

If the AQI exceeds 300, all respirator users must be provided with medical evaluation, fit-testing and **respirator use** training.

Respirators must be chosen to provide protection against **all** the hazards that are present. Filtering facepiece respirators and other particulate respirators **filter particles but** do not provide protection against gases or vapors and will not provide oxygen. Do not rely on filtering facepiece respirators in areas where combustion gases are present.

Employees should keep track of their respirator so that they do not mistakenly use someone else's respirator.

Employees who have a heart or lung problem should ask their **doctor** **health care provider** before using a respirator **or working in smoky conditions**.

**(g) How to properly put on, use, and maintain the respirators**

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

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

- (7) Place the mask over the nose and under the chin, with one strap placed below the ears and one strap above.
- (8) Pinch the metal part (if there is one) of the respirator over the top of the nose so it fits securely.



Drawing Showing Proper Fitting of a Filtering Facepiece Respirator (shaving is **recommended** **but** not required for voluntary respirator use)

**In the diagram above, add an arrow pointing to the NIOSH label and a box that includes this text: “A respirator will have a label that says NIOSH and a respirator model number.”**  
**Also in the diagram above make the following change because not all N95 respirators have nose clips: “Check face seal, tighten nose clip, **if present.**”**

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. **If possible adjust** the respirator if air leaks between the seal and the face. **If the respirator can not be adjusted to fit request a different model of respirator.** The more air leaks **around**

the edges of the respirator, **the less protection the user receives.**

A respirator will provide much less protection if facial hair interferes with the seal. Loose-fitting powered air purifying respirators may be worn by people with facial hair since they **generally have closures** that are not affected by facial hair.

Filtering facepiece respirators and filters of reusable respirators should be replaced if they get damaged, deformed, dirty, or difficult to breathe through. Filtering facepiece respirators are disposable respirators that cannot be cleaned or disinfected. A best practice is to. **The employer must provide** replacement filtering facepiece respirators at **least at** the beginning of each shift, **and more frequently as needed.**

If you have symptoms such as difficulty breathing, dizziness, or nausea, go to an area with cleaner air **if possible**, take off the respirator, and get medical help.

**(d) The employer's two-way communication system.**

Employers shall alert employees when the air quality is harmful and what protective measures are available to employees.

Employers shall encourage employees to inform their employers 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.

The employer's communication system is: \_\_\_\_\_

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NOTE: Authority cited: Section 142.3, Labor Code. Reference: Sections 142.3 and 144.6, Labor Code.