



LOS CIEN



- **WILDFIRE SMOKE / EL HUMO DE INCENDIOS**

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TITLE 8 CCR REGULATIONS

MODEL INJURY AND ILLNESS PREVENTION PROGRAM FOR HIGH HAZARD EMPLOYERS

This is a fillable template that the employer must complete. Instructions in red font enclosed in brackets indicate where you must enter your worksite-specific information.

Every California employer must establish, implement and maintain a written Injury and Illness Prevention (IIP) Program and a copy must be maintained at each workplace or at a central worksite if the employer has non-fixed worksites. The requirements for establishing, implementing and maintaining an effective written injury and illness prevention program are contained in Title 8 of the California Code of Regulations, Section [3203](#) (T8 CCR 3203) and consist of the following elements:

- Responsibility
- Compliance
- Communication
- Hazard Assessment
- Accident/Exposure Investigation
- Hazard Correction
- Training and Instruction
- Employee access to the IIP Program

§5141.1 Protection from Wildfire Smoke.

Worker Safety and Health in Wildfire Regions

(a) Scope.

(1) This section applies to workplaces where:

(A) The current Air Quality Index (current AQI) for PM_{2.5} is 151 or greater, regardless of the AQI for other pollutants; and

(B) The employer should reasonably anticipate that employees may be exposed to wildfire smoke.

(2) The following workplaces and operations are exempt from this section:

(A) Enclosed buildings or structures in which the air is filtered by a mechanical ventilation system and the employer ensures that windows, doors, bays, and other openings are kept closed, except when it is necessary to open doors to enter or exit.

(B) Enclosed vehicles in which the air is filtered by a cabin air filter and the employer ensures that windows, doors, and other openings are kept closed, except when it is necessary to open doors to enter or exit the vehicle.

(C) The employer demonstrates that the concentration of PM_{2.5} in the air does not exceed a concentration that corresponds to a current AQI of 151 or greater by measuring PM_{2.5} levels at the worksite in accordance with Appendix A.

(D) Employees exposed to a current AQI for PM_{2.5} of 151 or greater for a total of one hour or less during a shift.

(E) Firefighters engaged in wildland firefighting.

(3) For workplaces covered by this section, an employer that complies with this section will be considered compliant with sections 5141 and 5155 for the limited purpose of exposures to a current AQI for PM_{2.5} of 151 or greater from wildfire smoke.

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(E) Firefighters engaged in wildland firefighting.

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California Department of
Industrial Relations

Cal/OSHA -

[Labor Law](#)[Safety & Health](#)[Workers' Comp](#)[Self Insurance](#)[Apprenticeship](#)[Director's Office](#)[Boards](#)[Search](#)[Cal/OSHA](#)[Seguridad y salud de trabajadores en regiones de incendios](#)

Seguridad y salud de trabajadores en regiones de incendios

[English](#)

El humo y limpieza de incendios presentan riesgos que empleadores y trabajadores en regiones afectadas deben conocer. El humo de incendios contiene productos químicos, gases y partículas finas que pueden causar daño a la salud. Los riesgos continúan aun después de que se hayan extinguido los incendios y la limpieza comienza. Equipo protector adecuado y capacitación es necesario para la seguridad de trabajadores en regiones de incendios.

Los cortes de electricidad también pueden presentar peligros eléctricos y otros peligros para trabajadores. La instalación y uso adecuado de generadores pueden prevenir peligros de electrocución. Los trabajadores también tienen que tener en cuenta la posibilidad de ser electrocutados o lesionados por partes móviles de maquinaria y otro equipo cuando regrese la electricidad. Los trabajadores también están en riesgo cuando trabajan sin electricidad en áreas sin ventilación por que los sistemas de ventilación no están funcionando.

Cal/OSHA tiene una norma de emergencia ([artículo 5141.1](#)) para proteger a los empleados expuestos al humo de incendios. La norma requiere lo siguiente:

sh/Worker-Health-and-Safety-in-Wildfire-Regions.html

Cal/OSHA

Emergency Response

- ▶ [Cal/OSHA COVID-19 Guidance and Resources](#)
 - [Emergency Temporary Standards, Information and Resources](#)
 - [Revisions to the COVID-19 Prevention Emergency Temporary Standards](#)
- ▶ [Worker Safety and Health in Wildfire Regions](#)

Quick Links

- ▶ [File a workplace safety complaint](#)
- ▶ [Obtain a free consultation](#)
- ▶ [Important Cal/OSHA updates](#)
- ▶ [COVID-19 related violations cited](#)

Protecting Workers Exposed to Wildfire Smoke

Cal/OSHA's regulation T8CCR, [section 5141.1](#), Protection From Wildfire Smoke, addresses the hazards workers may be exposed to from the small particles in wildfire smoke, known as PM2.5. This fact sheet provides an overview, not all of the requirements of section 5141.1.

Which employers must comply with the standard?

Section 5141.1 applies to workplaces when there are two conditions in place:

1. The current Air Quality Index (AQI) for airborne particulate matter 2.5 micrometers or smaller (PM2.5) is 151 or greater.
2. The employer should reasonably anticipate that employees could be exposed to wildfire smoke.

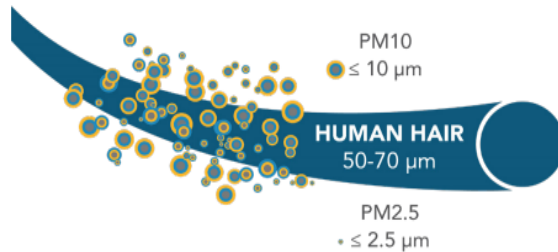
What is "current AQI"?

The Current AQI is the method used by the U.S. Environmental Protection Agency (U.S. EPA) to report air quality on a real-time basis. Current AQI is also referred to as the "NowCast," and represents data collected over time periods of varying length in order to reflect present conditions as accurately as possible.

Which employers are exempt from the standard?

Employers with workplaces and operations in any of the following conditions are exempt from section 5141.1:

- Enclosed buildings or structures in which the air is filtered by a mechanical ventilation system and the employer ensures that windows, doors, bays and other openings are kept closed except when it is



What are the hazards?

Wildfire smoke is composed of harmful chemicals and tiny particles suspended in the air. The small particulates (PM2.5) can present a significant health hazard for workers exposed to the smoke, even when they are not working near a wildfire. These particles can irritate the lungs and cause serious or even fatal health effects, such as:

- Reduced lung function
- Bronchitis
- Worsening of asthma
- Heart failure

What do employers have to do?

- **Identify harmful exposures:** determine employee exposure to PM2.5 at the start of each shift and periodically thereafter, as needed.
- **Communicate with employees:** implement a system for communicating wildfire smoke hazards in a language and manner readily understandable by all employees. This includes encouraging employees to inform their employer of worsening air quality and adverse symptoms that might be related to wildfire smoke.

Protegiendo Trabajadores Expuestos al Incendios forestales

Regulación T8CCR Cal/OSHA's, [sección 5141.1](#), Protección contra Humo de Incendios Forestales, aborda los riesgos a los trabajadores que pueden estar expuestos a las partículas pequeñas del humo de los incendios forestales, conocidas como PM2.5. Esta hoja informativa provee un resumen, no todos los requerimientos de la sección 5141.1.

¿Cuáles empleadores deben cumplir con la norma?

La sección 5141.1 aplica a los lugares de trabajo cuando existan dos condiciones en vigor:

1. El Índice Actual de Calidad del Aire (AQI, por sus siglas en inglés) para partículas de materia en el aire de 2.5 micrómetros o menores (PM2.5) sea 151 o mayor.
2. El empleador debe anticipar razonablemente que los trabajadores pudieran estar expuestos al humo de incendios forestales.

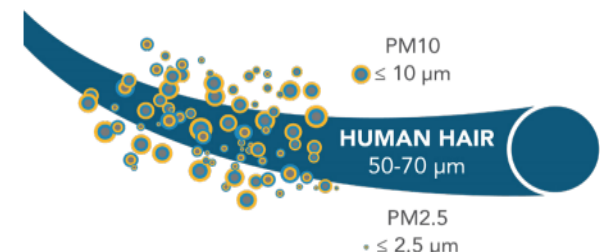
¿Cuál es el AQI actual?

El AQI actual es el método usado por la Agencia para Protección Ambiental de EE.UU. (U.S. EPA por sus siglas en inglés) para reportar la calidad del aire en tiempo real. El AQI actual es también referido como el "NowCast", y representa datos colectados en períodos de longitud variables de manera que reflejen las condiciones actuales y lo más exactas posibles.

¿Cuáles empleadores están exentos de la norma?

Empleadores con lugares de trabajo y de operaciones en una de las siguientes condiciones están exentos de la sección 5141.1:

- Edificios encerrados o estructuras en las cuales el aire está siendo filtrado por un sistema de ventilación mecánico y



¿Cuáles son los riesgos?

El humo de incendios está compuesto de químicos dañinos y partículas pequeñas suspendidas en el aire. Las partículas pequeñas (PM2.5) pueden presentar un riesgo significativo a la salud para los trabajadores expuestos al humo, incluso cuando no se encuentren trabajando cerca de un incendio forestal. Estas partículas pueden irritar los pulmones y pueden causar efectos sanitarios graves o mortales tales como:

- Función reducida de los pulmones
- Bronquitis
- Empeoramiento del asma
- Falla cardíaca

¿Qué deben hacer los empleadores?

- **Identificar las exposiciones nocivas:** determinar la exposición de los empleados a PM2.5 al inicio de cada turno y periódicamente después de esto, según como sea necesario.
- **Comunicarse con los empleados:** implemente un sistema de comunicación para riesgos del humo de incendios en un lenguaje y manera que sea prontamente comprensible por todos los empleados. Esto incluye animar a los empleados a informar a su empleador del empeoramiento de la calidad del aire y de los síntomas adversos que puedan estar relacionados con el humo de los incendios forestales.

Workers Exposed to Wildfire Smoke Hazards

What are the hazards?

Wildfire smoke can be a hazard for workers even when they are not close to a fire. The smoke contains very fine particles in the air, also called particulate matter (PM). The major health concerns are the smallest particles called "PM2.5" because they are 2.5 microns in diameter or smaller. That is much smaller than the diameter of a human hair. PM2.5 can irritate the lungs and cause serious or even fatal health effects, such as:

- Reduced lung function
- Bronchitis
- Worsening of asthma
- Heart failure

Cal/OSHA has a regulation, [section 5141.1](#), Protection From Wildfire Smoke, that requires employers to protect workers from unhealthy levels of PM2.5. This fact sheet provides an overview, not all the details of the section 5141.1 requirements.

When does an employer have to comply with section 5141.1?

Two conditions must be in place:

1. The current Air Quality Index (AQI) for PM2.5 for the location where workers are working is 151 or greater. The current AQI is the method used by the U.S. Environmental Protection Agency (U.S. EPA) to report air quality.
2. The employer should reasonably anticipate that workers could be exposed to wildfire smoke.

Employers with workplaces and operations in any of the following conditions do not have to implement section



greater for a total of one hour or less during a shift.

- Firefighters engaged in wildland firefighting.

What does an employer have to do if section 5141.1 applies to their workplace?

- **Identify harmful exposures:** Determine what exposures to PM2.5 their workers have at the start of each shift and then periodically, as needed.
- **Communicate with workers:** Inform workers of wildfire smoke hazards so all workers understand. This includes encouraging workers to inform their employer—without fear of retaliation—of worsening air quality and symptoms that might be related to wildfire smoke. The employer must inform workers about:
 - The current AQI for PM2.5.
 - Protective measures available to them to reduce their wildfire smoke exposures.
- **Train and instruct workers:** Provide training to workers so that they understand at least the following information regarding wildfire smoke:

Empleados expuestos a riesgos por el humo de incendios forestales

¿Cuáles son los riesgos?

El humo de los incendios forestales puede ser peligroso para los trabajadores aún cuando no estén cerca del fuego. El humo contiene partículas muy finas en el aire, que se llaman también material de partículas (PM, por sus siglas en inglés). Las mayores inquietudes de salud son las partículas más pequeñas llamadas "PM2.5" porque son 2.5 micrones en diámetro o más pequeñas. Eso es más pequeño que el diámetro de un cabello humano. PM2.5 puede irritar los pulmones y causar efectos serios o aún mortales de salud, tales como:

- Función reducida de los pulmones
- Bronquitis
- Agudización del asma
- Falla cardíaca

Cal/OSHA tiene una regla, [sección 5141.1](#), Protección Contra el Humo de Incendios Forestales, que requiere que los empleadores protejan a sus trabajadores de niveles malsanos de PM2.5. Esta hoja informativa provee un resumen, no todos los detalles de los requisitos de la sección 5141.1.

¿Cuándo tiene un empleador qué cumplir con la sección 5141.1?

Dos condiciones deben estar presentes:

1. El Índice Actual de Calidad del Aire (AQI) por sus siglas en



superior por el total de una hora o menos durante un turno.

- Bomberos comprometidos en luchas contra incendios forestales

¿Qué tiene que hacer un empleador si la sección 5141.1 aplica para sus lugares de trabajo?

- **Identificar exposiciones dañinas:** Determinar cuales exposiciones a PM2.5 tienen sus empleados al inicio de cada uno de sus turnos y periódicamente, según sean necesarios.
- **Comunicarse con los trabajadores:** Informar a los trabajadores de los peligros del humo del incendio forestal de manera que todos lo empleados entiendan. Esto incluye animar a los trabajadores a informar a su empleador, sin el temor de represalias, del empeoramiento de calidad del aire y síntomas que podrían estar relacionadas al humo del incendio forestal. El empleador debe informar a los trabajadores acerca de:

Worker Safety: Wildfire Smoke and Evacuation Zones

Wildfire Smoke Protection

In California, there is a law that requires your employer to protect you from wildfire smoke. Your employer has to reduce your exposure to unhealthy air by:

- Changing the worksite to a location where the air is not unhealthy,
- Altering your work duties or schedule to reduce time in unhealthy air, or
- Providing N95 masks.



Seguridad de trabajadores: humo de incendios y zonas de evacuación

Protección contra humo de incendios

En California, hay una ley que requiere que tu empleador te proteja contra el humo de incendios. Tu empleador tiene que reducir tu exposición a aire dañino al:

- Cambiar el sitio de trabajo a una ubicación donde el aire no sea dañino,
- Modificar tus tareas o horario de trabajo para reducir el tiempo en aire dañino,
- Proporcionar máscaras N95



Wildfire Smoke
Training

Wildfire Smoke Training

You should be trained on how to properly use the masks and on the steps your employer takes to protect you and your coworkers from wildfire smoke. Read more on the requirements on Cal/OSHA's webpage www.dir.ca.gov/wildfire.

Capacitación sobre
humo de incendios

Capacitación sobre humo de incendios

Debes recibir capacitación sobre cómo usar las máscaras correctamente y sobre los pasos que tu empleador toma para protegerte a ti y a tus compañeros de trabajo contra el humo de incendios. Lee más sobre los requisitos en el sitio web de Cal/OSHA www.dir.ca.gov/incendios.

Evacuation Zones

You are not required to work in an evacuation zone. California laws give workers the right to refuse to work in unsafe conditions, including refusing to work in areas that require evacuation.

The law can help you recover unpaid wages if your employer fires you or reduces your hours for refusing to work in an evacuation zone.



Zonas de evacuación

No es requerido que trabajes en una zona de evacuación. Las leyes de California dan a los trabajadores el derecho de negarse a trabajar en condiciones inseguras, incluso negarse a trabajar en un área que requiere evacuación.

La ley puede ayudarte a recuperar sueldos impagos si tu empleador te despidió o reduce tus horas por negarse a trabajar en una zona de evacuación.



Get in touch with the Department of Industrial Relations

In California, labor laws protect all workers regardless of immigration status. You have the right to file a confidential complaint if your employer is not protecting you from wildfire smoke. If your employer fires you or reduces your work hours for exercising your rights, you can file a claim to possibly recover unpaid wages and more.

Ponte en contacto con el Departamento de Relaciones Industriales

En California, las leyes laborales protegen a todos los trabajadores sin importar el estatus migratorio. Tienes el derecho de presentar una queja confidencial si tu empleador no está protegiéndote contra el humo de incendios. Si tu empleador te despidió o reduce tus horas por ejercer tus derechos, puedes presentar una denuncia para posiblemente recuperar sueldos impagos y más.

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

(a) The health effects of wildfire smoke.

● Rectangular Snip

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 PM2.5 because it has a diameter of 2.5 micrometers or smaller.

(b) The right to obtain medical treatment without fear of reprisal.

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.

(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 only uses the AQI for PM2.5.

The easiest way to find the current and forecasted AQI for PM2.5 is to go to [AirNow.gov](https://airnow.gov) and enter the zip code, town, or city where you will be working. The current AQI is also available at [fire.AirNow.gov](https://fire.airnow.gov), an interactive map which also provides information about some fires and smoke plumes. You can also visit the website of your local air district. Employees who do not have access to the internet can contact their employer for the current AQI. The EPA website enviroflash.info can transmit daily and forecasted AQIs by text or email for particular cities or

Heat & Night Work Safety

Seguridad en los Trabajos Nocturnos & Calor

CCR Title 8, Section 3395

- MUST BE in writing
- Provision of water
- Access to Shade
- High Heat Procedures
- Rest Periods
- Worker Training
- Supervisory Training
- Observation and Response Requirement
- Emergency Medical Services
- First Aid Training
- Address Lack of Acclimatization

- ❖ Acceso al Agua
- ❖ Acceso a la Sombra
- ❖ Monitorear el Clima y la Aclimatación
- ❖ Procedimientos para Altas Temperaturas
- ❖ Capacitación para Trabajadores y Supervisores
- ❖ Procedimientos Escritos Incluyendo los Procedimientos en Casos de Emergencia

Health effects of heat
Two types of heat illness:

Heat Exhaustion
Symptoms: Dizziness, Nausea, Headache, Weakness, Heavy sweating, Pale or clammy skin, Rapid pulse, Fainting.

Heat Stroke
Symptoms: High body temperature, Hot, dry skin, Rapid pulse, Loss of consciousness, Seizures.

1
Watch out for early symptoms. You may need medical help. People react differently — you may have just a few of these symptoms, or most of them.

Stay safe and healthy!
WATER. REST. SHADE. The work can't get done without them.

Drink water even if you aren't thirsty — every 15 minutes.

Rest in the shade.

Watch out for each other.

Wear hats and light-colored clothing.

2
"Easy does it" on your first days of work in the heat. You need to get used to it. Rest in the shade — at least 5 minutes as needed to cool down.



RESOURCES

- Protecting Outdoor Workers Exposed to Smoke from Wildfires

- <https://www.dir.ca.gov/dosh/wildfire/worker-protecti...>



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