

standards to be at least as effective as the federal standards promulgated under the federal Occupational Safety and Health Act of 1970. (Labor Code §140)

- 5) Authorizes citations to be issued to employers when Cal/OSHA has evidence that an employee was exposed to a hazard in violation of any requirement enforceable by the division, including the exposing, creating and controlling employer. (Labor Code §6400)
- 6) Prohibits a person from discharging or in any manner discriminating against any employee because the employee, among other things, reported a work-related fatality, injury, or illness, requested access to occupational injury or illness reports and records, or exercised any other rights protected by the federal Occupational Safety and Health Act (29 U.S.C. Sec. 651 et seq.), as specified. Affords an aggrieved worker with reinstatement and reimbursement rights, as specified. (Labor Code §6310)
- 7) Prohibits an employee from being laid off or discharged for refusing to perform work in violation of prescribed safety standards, where the violation would create a real and apparent hazard to the employee or his or her fellow employees. Any employee who is laid off or discharged in violation of this right shall have a right of action for lost wages for the time the employee is without work as a result of the layoff or discharge. (Labor Code §6311)
- 8) Provides that a person who, after receiving notice to evacuate or leave, willfully and knowingly directs an employee to remain in, or enter, an area closed due to a menace to the public health or safety as set forth in Section 409.5 of the Penal Code shall be guilty of a misdemeanor. (Labor Code §6311.5)

Existing regulatory law:

- 9) Establishes the Maria Isabel Vasquez Jimenez heat illness standard (*Heat Illness Prevention in Outdoor Places of Employment standard*), applicable to all outdoor places of employment and requires, among other things, that employees have access to potable water and be encouraged to drink water frequently, that the employer have and maintain one or more areas with shade at all times while employees are present that are either open to the air or provided with ventilation or cooling, and that the employer implement high-heat procedures when the temperature *equals or exceeds 95 degrees Fahrenheit*, as specified. (California Code of Regulations Title 8 §3395 & Labor Code §6721)
- 10) Establishes a standard for the protection of employees from wildfire smoke (*Protection from Wildfire Smoke*) when the Air Quality Index (AQI) for PM2.5 is 151 or greater and the employer should reasonably anticipate that employees may be exposed to wildfire smoke. The standard requires, among other things, an employer to control for harmful exposure by implementing: 1) engineering controls such as providing enclosed buildings where the air is filtered; 2) administrative controls such as relocating work to a location where the current AQI for PM2.5 is lower; and 3) control by respiratory protective equipment for voluntary use by employees where the current AQI for PM2.5 is equal to or greater than 151, but does not exceed 500. (CA Code of Regulations Title 8 §5141.1)

This bill:

- 1) Requires Cal/OSHA, before December 1, 2025, to submit to the Standards Board a rulemaking proposal to consider revising the heat illness prevention and protection from wildfire smoke standards. In preparing the proposals, requires Cal/OSHA to consider revising the standards as follows:
 - a. The Maria Isabel Vasquez Jimenez heat illness standard, to include an ultrahigh heat standard for employees in outdoor places of employment for heat in excess of 105 degrees Fahrenheit. The standard shall include:
 - i. Additional mandatory paid preventative cool down rest periods every hour, readily and immediately available cool water, and increased employer monitoring of employees for symptoms and other protections the division wishes to consider.
 - ii. Require employers to distribute a copy of the Heat Illness Prevention Plan to all new employees upon hire and upon training required by the standard, but no more than twice per year to each employee.
 - iii. Require employers to distribute a copy of the Heat Illness Prevention Plan to all employees at least once on an annual basis.
 - b. The wildfire smoke standard, to reduce the AQI threshold for PM2.5 at which control by respiratory protective equipment becomes mandatory to, at a maximum, an AQI of 301 or more, or lower if determined by the division. For an AQI above 301 but below 500, the employer need not implement fit testing and medical evaluations or otherwise implement requirements under existing standard.
- 2) Requires the Standards Board to review the proposed changes and adopt revised standards before December 1, 2025.
- 3) Requires Cal/OSHA to consider developing regulations, or revising existing regulations, related to additional protections such as acclimatization to higher temperatures, especially following an absence of a week or more from working in ultrahigh heat settings, including after an illness.
- 4) Defines “PM2.5” to mean solid particles and liquid droplets suspended in air, known as particulate matter, with an aerodynamic diameter of 2.5 micrometers or smaller.

COMMENTS

1. Background:

Climate change hazards are intensifying, as we are much too familiar with here in California. The impacts of higher temperatures are worsening many types of disasters. According to the Natural Resources Defense Council, “in 2021, there were 20 weather and climate disaster events in the United States—including severe storms, floods, drought, and wildfires—that individually caused at least \$1 billion in losses. “Disasters in 2021 had a staggering total price tag of \$145 billion—and that’s an underestimate because it excludes health damages,” says Vijay Limaye, senior scientist at NRDC. “These climate and weather disasters endanger

people across the country throughout the entire year. In fact, more than 4 in 10 Americans live in a county that was struck by climate-related disasters in 2021.”¹

In 2020 alone, California witnessed wildfires of historic proportions leaving behind destruction of homes and businesses and the natural treasures of our state. These catastrophic wildfires have demonstrated the urgent need for protection of workers who labor outdoors in areas where the heat and air quality meets or exceeds unhealthy levels. Exposure to fine particulate matter can reduce lung function; worsen heart and lung conditions, and cause coughing, wheezing and difficulty breathing.

On December 13, 2018, a petition was submitted to the Standards Board seeking an emergency standard for outdoor occupations such as agriculture, construction, landscaping, maintenance, commercial delivery and other activities not considered to be “first response.” On January 9, 2019, Governor Gavin Newsom issued Executive Order N-05-19, declaring that California experienced the most destructive fire season in state history in 2018, with over 7,600 wildfires that burned 1,846,445 acres in total. The Order further states, in part, “...the reality of climate change – persistent drought, warmer temperatures and more severe winds – has created conditions that will lead to more frequent and destructive wildfires.” Consistent with the Governor’s Order, U.S. Environmental Protection Agency research finds that fires are increasing in frequency, size and intensity, creating the potential for greater smoke production and chronic exposures in the United States, particularly in the West.²

The standard for wildfire smoke was adopted as emergency standards and became operative on 7/29/2019. The standard for heat illness prevention was also adopted as emergency standards and became operative on 8/22/2005.

2. Heat Illness Prevention and Protection from Wildfire Smoke Standards:

In California, every employer has a legal obligation to provide and maintain a safe and healthful workplace for their employees. Among other things, employers are required to have a written Injury and Illness Prevention Program (IIPP) with specific elements set forth in the Labor Code and Cal/OSHA regulations including, among other things, a system of communication and procedures for correcting unsafe and unhealthy work conditions. Employers must regularly review and update the IIPP in order for it to remain effective. Cal/OSHA has a duty and authority to investigate a workplace for safety and welfare of employees, on its own motion or upon complaints. Additionally, Cal/OSHA has various standards that employers must abide by in order to render employment safe for workers.

Maria Isabel Vasquez Jimenez - Heat Illness Prevention

Employers in the following industries are additionally required to follow the Heat Illness Prevention in Outdoor Places of Employment standards to ensure worker safety:

- Agriculture
- Construction

¹ Denchak, M. (May 23, 2022). *Are the Effects of Global Warming Really that Bad?* Natural Resources Defense Council. <https://www.nrdc.org/stories/are-effects-global-warming-really-bad>

² U.S. EPA. Wildland Fire Research to Protect Health and the Environment. <https://www.epa.gov/air-research/wildland-fire-research-protect-health-and-environment>

- Landscaping
- Oil and gas extraction
- Transportation or delivery of agricultural products, construction materials or other heavy materials (e.g. furniture, lumber, freight, cargo, cabinets, industrial or commercial materials), except for employment that consists of operating an air-conditioned vehicle and does not include loading or unloading.

Named after Maria Isabel Vasquez Jimenez, an agricultural worker who lost her life and that of her unborn child while working in the fields in 2008, the heat illness prevention standard requires these industries to develop, put in writing, and implement effective procedures for complying with the requirements of the standard. The measures required by the standard may be integrated into the employer's written IIPP or maintained in a separate document, and must include, among other things, the following:

- *Training:* Train all employees and supervisors about heat illness prevention and have available, at the worksite and upon request, the employer's written heat illness plan.
- *Water:* Provide enough fresh water so that each employee can drink at least 1 quart per hour, or four 8-ounce glasses, of water per hour, and encourage them to do so.
- *Shade:* Provide access to shade and encourage employees to take a cool-down rest in the shade for at least 5 minutes. They should not wait until they feel sick to cool down.
- *Cool-down Rest and Recovery periods:* Encourages workers to take a preventative cool-down rest in the shade when they feel the need to do so to protect themselves from overheating. When temperatures reach 95 degrees or above, the employer must also ensure that the employee takes a minimum ten minute net preventative cool-down rest period every two hours.
- *Monitoring:* requires employers to implement high-heat procedures when the temperature equals or exceeds 95 degrees Fahrenheit, including monitoring employees for signs or symptoms of heat illness.
- *Planning:* Develop and implement written procedures for complying with the standard including acclimation methods, high-heat procedures and emergency response procedures.

Protection from Wildfire Smoke Standard

The standard establishes a protection from wildfire smoke for instances when the Air Quality Index (AQI) for PM2.5 (particulate matter) is 151 or greater and the employer should reasonably anticipate that employees may be exposed to wildfire smoke. The standard requires, among other things, an employer to:

- Determine employee exposure to PM2.5 for covered worksites at the start of each shift and periodically thereafter.
- Establish and implement a system for communicating wildfire smoke hazards in a language and manner readily understandable by employees, including provisions designed to encourage employees to inform the employer of wildfire smoke hazards at the worksite without fear of reprisal.
- Provide employees with effective training and instruction, as specified.
- Control for harmful exposure by implementing: 1) Engineering controls such as providing enclosed buildings where the air is filtered; 2) Administrative controls such as relocating work to a location where the current AQI for PM2.5 is lower; and 3) Control

by respiratory protective equipment for voluntary use by employees where the current AQI for PM2.5 is equal to or greater than 151, but does not exceed 500.

The standard finds an AQI level of 301 to 500 to be hazardous. The Wildfire Smoke Standard uses the following tiers of precautions:

- At all times, the employer must monitor the air quality at worksites, offer training to workers, and have a stockpile of N95 respirators on hand for workers.
- If the AQI rises to 151, the employer must provide sufficient number of respirators (N95 respirators) to all employees for voluntary use, but must encourage they do so.
- If the AQI rises to 500 or above, respirators are required and employers must force employees to wear N95s.

3. Need for this bill?

According to the author, “Heat-related deaths are on the rise for all workers, but especially farmworkers. Agriculture is an over \$50 billion industry in California, providing more than 13% of total commodities and 40% of all organic production in the United States. A study in the American Journal of Industrial Medicine found that agriculture workers are 35 times more at risk for heat-related mortality than other industries. Studies also show that heat stress leads to farmworkers working fewer hours, which diminishes crop output. By 2030, it is estimated that total working hours lost because of extreme heat events will rise by 2.2%: a total of \$2,400 billion. By threatening farmworkers’ ability to grow and harvest California’s crops, ultra-high heat poses an existential threat to the state and to the nation’s food supply.”

The author also argues notes that, “Worsening heat waves also affect the air we breathe. Ultra-high heat increases smog formation; exacerbates wildfire conditions that lead to smoke and further air pollution; and causes air masses to remain static, which further builds up smoke, dust, gases, and other industrial air pollution. The Air Quality Index (AQI) is a measure that runs from 0 to 500: the greater the value, the greater the level of air pollution. An AQI value between 1 to 150 indicates the air is “unhealthy for sensitive groups” but as this value rises above 200 this indicates the air is “very unhealthy” or “hazardous” for everyone. Unhealthy air quality can cause serious health problems up to and including death. Pollution can irritate the respiratory system, reduce lung function, and cause feelings of chest tightness, wheezing, or shortness of breath.”

This bill would require the division to submit to the standards board a rulemaking proposal to consider revising the heat illness standard to include an ultrahigh heat standard for employees in outdoor places of employment for heat in excess of 105 degrees Fahrenheit, as prescribed, and require employers to distribute copies of the Heat Illness Prevention Plan, as provided. The bill would similarly require a rulemaking proposal to consider revising the wildfire smoke standard to reduce the existing air quality index threshold for PM2.5 particulate matter at which control by respiratory protective equipment becomes mandatory.

4. Proponent Arguments:

According to California Environmental Voters, “California heat waves are becoming longer, hotter, and more deadly. California currently averages 35 days per year where temperatures exceed 103 degrees and excessive heat days are projected to increase by 43% by 2050. Ultra-high heat days occur when temperatures exceed 105 degrees Fahrenheit. Excessive heat, particularly heat in excess of 105 degrees, can cause heat-related illness (HRI). A heat index

above 80 degrees means that prolonged exposure or physical activity can lead to fatigue; when that number hits 90 degrees, heat stroke, cramps, and heat exhaustion are all imminent threats to outdoor workers. Temperatures above 103 degrees are dangerous and the frequency of HRIs including respiratory failure, heart attacks, and strokes increase dramatically because of extreme-heat conditions.

The risk of HRI in agricultural workers is exacerbated by work rate and environmental temperature even when farms follow current Cal/OSHA regulations. Many farmworkers are paid based on how much they harvest (a piece-rate pay system), which could lead to workers continuing to work during unsafe conditions while their bodies are telling them to stop. Pushing farmworkers' bodies through strenuous outdoor activity for prolonged periods of time is dangerous in any elevated heat condition, even when temperatures do not meet California's regulated heat thresholds. As ultra-high heat days increase, California's current regulatory thresholds for employee protections – including access to shade, cool water, and cooling breaks – are inadequate.”

5. Opponent Arguments:

A coalition of employer organizations, including the California Chamber of Commerce, are opposed and argues that “AB 2243 is an end-run around Cal/OSHA’s regulatory process that attempts to re-write two of Cal/OSHA’s most recent regulations in ways which will not improve safety and Cal/OSHA specifically chose to reject in its drafting of these regulations. In addition, AB 2243’s push to consider new standards is similarly wasteful – and, if the proponents wish to push those topics, they should be handled via the normal petition process at Cal/OSHA.”

Regarding the wildfire smoke proposals, they write, “when drafting the Wildfire Smoke Standard, Cal/OSHA intentionally set the Tier 2 threshold relatively low (at an AQI of 150) to ensure workers had access to N95’s if they wanted them – but left the threshold for *mandatory N95 usage* high (at 500). This balance ensured that workers have access to N95’s, but avoids infeasible and disruptive requirements such as compelled N95 usage, mandatory shaving, and mandatory fit-testing/medical evaluation for each employee. AB 2243 would create a third tier, with an intermediate level where workers are required to wear N95’s at an AQI of 301, but not compelled to undergo fit testing and medical evaluation.

We are concerned with this change on three grounds: first, we believe compelling workers to wear N95’s when they have not been medically evaluated for such gear may pose health risks for certain workers. Second, this will increase consumption of N95’s state-wide and potentially take them from others who have greater need (such as nurses and those handling pesticides). Finally, we do not see the benefit here, as workers already have the right to such masks under the present regulation.”

Regarding the proposed changes to the heat illness standard, they argue that, “AB 2243 would compel Cal/OSHA to create another “ultrahigh heat” tier for when places of employment exceed 105 Fahrenheit, with vaguely defined additional measures, including “cool water” (already provided under the present regulation), “increased employer monitoring” (already provided under the present regulation), “additional mandatory work breaks every hour” (already provided at least every 2 hours in agriculture), and “shade structures that include cooling features such as misters” (shade structures already required). Though these changes are vaguely-defined, they appear to be very similar to the existing

regulatory text –which means that: (A) They are not necessary and would create confusion; and (B) they would be perfectly appropriate to *raise via the normal regulatory process* with Cal/OSHA. Instead, it appears that the proponents of AB 2243 would like to skip Cal/OSHA’s detailed analysis and expert discussion with an end-run of legislation.”

Lastly, they argue, “In addition, AB 2243 then contains a list of new topics for entirely new regulations which Cal/OSHA must consider – but each of these topics is *already covered by an existing law or regulation*.” They note, “In other words – in the most likely scenario, considering these new regulatory processes will not improve safety and will certainly waste Cal/OSHA’s time. In the worst-case scenario – if Cal/OSHA drafts a duplicative regulation on these already covered topics – they will lead to confusion and conflicting obligations for California’s workplaces.”

6. Staff Comment:

Provisions of the bill:

6721 (b)(1)(B): “require employers to distribute a copy of the Heat Illness Prevention Plan to all new employees upon hire and upon training required by Section 3395 of Title 8 of the California Code of Regulations, but no more than twice per year to each employee.”

6721(b)(1)(C): require employers to distribute a copy of the Heat Illness Prevention Plan to all employees at least once on an annual basis.

The more informed these workers are about heat-illness prevention, the better. However, these two provisions read confusing and contradictory, as there could be scenarios where training is needed more than twice per year. *The author may wish to amend these provisions in order to provide further clarity on when and how often these plans need to be distributed to workers.*

7. Prior and Related Legislation:

AB 1643 (R. Rivas, 2022) requires the Labor and Workforce Development Agency, on or before July 1, 2023, to establish an advisory committee to study the effects of extreme heat on California’s workers, businesses, and the economy and to make recommendations on how to improve the state’s identification, tracking, and response to these effects.

AB 2076 (L. Rivas, 2022) would establish the Extreme Heat and Community Resilience Program to coordinate state efforts and support local and regional efforts to prevent or mitigate the impact of and public health risks of heat. It also requires the California Department of Public Health (CDPH) to establish and maintain an Extreme Heat and Health Reporting System for the purpose of assisting local interventions and identifying and protecting heat-vulnerable or other at-risk populations. Pending in Senate Health Committee.

AB 2238 (L. Rivas, 2022) requires the CA Environmental Protection Agency, by January 1, 2024, to develop a statewide extreme heat ranking system in coordination with ICARP and the Department of Insurance, as provided. Pending in Senate Insurance Committee.

AB 2243 (E. Garcia, 2022) requires Cal/OSHA to submit to the Occupational Safety and Health Standards Board a proposal to revise the heat illness standard to include an ultrahigh

heat standard and the wildfire smoke standard to reduce the Air Quality Index (AQI) for PM2.5 to 200 or greater for the provision of respiratory protective equipment. AB 2243 is pending in this Committee and will be considered at a later hearing.

AB 2420 (Arambula, 2022) requires the Department of Public Health, in consultation with subject matter experts, to review available literature on adverse effects of extreme heat on perinatal health, develop guidance for safe-conditions and health considerations for pregnant individuals and infant children, and provide guidance to the Legislature. Pending in Senate Health Committee.

SUPPORT

California Environmental Voters
California Nurses for Environmental Health and Justice
California Water Service Company
Comite Civico del Valle
Communities for a Better Environment
East Yard Communities for Environmental Justice
La Cooperativa Campesina de California
Los Angeles Alliance for a New Economy
Los Angeles Neighborhood Land Trust
Neighborhood Legal Services of Los Angeles County
Prevention Institute
The Greenlining Institute
Union of Concerned Scientists

OPPOSITION

Agricultural Council of California
American Composites Manufacturers Association
American Pistachio Growers
Associated General Contractors
California Association of Joint Powers Authorities
California Association of Sheet Metal and Air Conditioning Contractors, National Association
California Association of Winegrape Growers
California Builders Alliance
California Building Industry Association
California Chamber of Commerce
California Cotton Ginners and Growers Association
California Forestry Association
California Framing Contractors Association
California Grocers Association
California Landscape Contractors Association
California League of Food Producers
California Legislative Conference of the Plumbing, Heating and Piping Industry
California Manufacturers & Technology Association
California New Car Dealers Association
California Railroads

California Restaurant Association
California Retailers Association
California Special Districts Association
California State Association of Counties
California Strawberry Commission
Construction Employers' Association
Hollywood Chamber of Commerce
Housing Contractors of California
National Electrical Contractors Association, California Chapters
National Elevator Industry, Inc.
National Federation of Independent Business
Nisei Farmers League
Northern California Allied Trades
PCI West – Chapter of the Precast/Prestressed Concrete Institute
Residential Contractors Association
Sacramento Regional Builders Exchange
Southern California Contractors Association
United Contractors
Western Agricultural Processors Association
Western Growers Association
Western Steel Council
Wall and Ceiling Alliance
Western Wall & Ceiling Contractors Association
Wine Institute

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