STATE OF CALIFORNIA — DEPARTMENT OF FINANCE

MAJOR REGULATIONS STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

DF-131 (NEW 11/13)

STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

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1. Statement of the need for the proposed major regulation.

Workers who are exposed to extreme heat or work in hot environments may be at risk of heat-related illnesses ranging from mild heat stress-induced symptoms to life-threatening heat stroke. Workers in non-climate controlled environments or in physically demanding occupations, typically with little ability to respond and adapt to extreme heat conditions on an individual basis, may be particularly vulnerable to heat-related illnesses. In 2005, Title 8 Section 3395 of the California Code of Regulations (8 CCR Section 3395) established a heat illness prevention standard for outdoor places of employment. However, the annual number of reported occupational heat stress-related incidents in indoor workplaces in California has increased in recent years. The regulation of indoor workplaces is intended to prevent or significantly reduce illnesses, injuries, permanent disabilities, and deaths related to heat stress from occupational indoor heat exposure.

2. The categories of individuals and business enterprises who will be impacted by the proposed major regulation and the amount of the economic impact on each such category.

The proposed regulation would result in total direct costs of $1.0 billion and total direct benefits of $4.0 billion from 2023-2032 with fiscal impacts (costs) to state and local entities of approximately $9 million on an undiscounted basis.

Individuals and businesses in a wide range of industries may be impacted by the proposed regulation. The regulation primarily impacts establishments that have an indoor heat source (such as a furnace, kiln, or stove) or a greenhouse and are not climate controlled ("Type 1 industries") and other establishments that may expose workers to hot indoor work environments depending on the establishment's location, whether or not the work takes place indoors, and whether or not the workplace is climate controlled ("Type 2 industries"). The affected 179 industries span the following sectors: NAICS 11, 12, 22, 23, 31-33, 42, 44-45, 48-49, 56, 72, 81.

Direct costs are estimated to be $0.996 billion for industry (including $0.966 billion for small businesses) and $6.7 million for state and local entities on an undiscounted basis. Direct costs to Cal/OSHA include one additional full-time equivalent safety inspector, plus fringe benefits and equipment, materials, and transportation, at a cost of approximately $2.3 million. Direct benefits to businesses (in avoided heat-related worker productivity losses) are estimated to be $2.3 billion. Direct health benefits to individuals (in avoided heat-related illnesses) are estimated to be $1.6 billion.

3. Description of all costs and all benefits due to the proposed regulatory change (calculated on an annual basis from estimated date of filing with the Secretary of State through 12 months after the estimated date the proposed major regulation will be fully implemented as estimated by the agency).

Establishments affected by the proposed regulation will incur costs to provide employees access to cool-down areas and drinking water free of charge; conduct trainings on safety procedures, identifying signs and symptoms of heat illness, and compliance with the regulation; develop a heat-illness prevention plan; measure and maintain records of the temperature or heat index; and use feasible engineering and/or administrative control measures, or provide personal heat-protective equipment. The total estimated costs in the first year of the regulation are approximately $215 million. Employers are anticipated to benefit from an increase in productivity due to reducing occupational exposure to extreme heat. This benefit is estimated to be approximately $222 million in the first year of the regulation. Individuals are estimated to benefit from a small risk reduction in the probability of injury or death due to a heat-related illness. This benefit is estimated to be approximately $141 million in the first year of the regulation.

4. Description of the 12-month period in which the agency estimates the economic impact of the proposed major regulation will exceed $50 million.

The proposed regulation is estimated to result in total costs of approximately $215 million in 2023 and averaging approximately $88 million per year from 2024 to 2032. The proposed regulation is estimated to result in total benefits of approximately $362 million in 2023 and averaging approximately $409 million per year from 2024 to 2032. Therefore, both the costs and benefits of the regulation (each separately) are likely to exceed the $50 million threshold in each year after the rule is promulgated.

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5. Description of the agency's baseline:

There are approximately 196,000 establishments and approximately 1.4 million employees in California potentially impacted by the proposed regulation. There is currently no federal regulation to prevent heat-related illness and protect workers in hot environments. In California, heat illness prevention in outdoor places of employment is mandated by 8 CCR Section 3395. Establishments that are subject to the outdoor heat standard are not anticipated to incur any incremental impacts due to the proposed indoor heat standard (unless they have indoor work areas that do not meet the new requirements). Furthermore, a majority of employers, including state and local entities, already use engineering and/or administrative control measures to reduce occupational exposure to extreme heat and are not anticipated to incur additional costs due to the proposed regulation (with the exception of training workers or developing a heat-illness prevention plan). From 2010 to 2018 there were approximately 185 workers' compensation claims for heat-related illness in indoor places of employment each year and less than 1 death per year on average. Evidence suggests there is significant underreporting of occupational heat-related illnesses and the number of incidents increased (by about 50 percent) in the previous decade--the hottest on record. Therefore, in the baseline the number of cases of heat-related illness is expected to increase from more than 300 to more than 500 per year from 2023 to 2032 absent the proposed regulation.

6. For each alternative that the agency considered (including those provided by the public or another governmental agency), please describe:

a. All costs and all benefits of the alternative
b. The reason for rejecting alternative

Alternative 1, the less stringent alternative, would eliminate from the proposed regulation subsection (e), which mandates additional assessment and control measures when the temperature or heat index equals or exceeds the specified regulatory thresholds. This alternative would result in total costs of $0.8 billion and total benefits of $1.2 billion from 2023 to 2032 on an undiscounted basis. DIR rejected Alternative 1 because it is less likely to effectively prevent or reduce heat-related illness relative to the proposed regulatory action.

Alternative 2, the more stringent alternative, would require employers to use a wet bulb globe temperature (WBGT) device to measure heat stress in indoor workplaces. This alternative would result in total costs of $1.1 billion and total benefits of $4.0 billion from 2023 to 2032 on an undiscounted basis. DIR rejected Alternative 2 because it imposes significant costs on small businesses and the additional benefits of using a WBGT device are not likely to exceed those under the proposed regulation.

7. A description of the methods by which the agency sought public input. (Please include documentation of that public outreach).

Cal/OSHA staff conducted extensive public outreach on the indoor heat illness prevention regulation and received many public comments from stakeholders. From February 2017 through February 2018, Cal/OSHA held three advisory committee meetings that were open to the public to develop a proposed regulation for minimizing heat-related illness among workers in indoor places of employment. Representatives from industry, labor, and advocacy groups as well as government agencies and health and safety experts participated and provided input. In addition, Cal/OSHA presented eight discussion drafts and solicited comments from stakeholders on the drafts. All discussion drafts and minutes from the advisory committee meetings are posted on Cal/OSHA's website. Cal/OSHA conducted numerous additional meetings with stakeholders, both in person and by phone. These meetings provided additional opportunities for stakeholder comments, as well as for the solicitation of alternatives to the proposed regulation. Cal/OSHA staff incorporated feedback it received from stakeholders as the draft regulation was being developed.

8. A description of the economic impact method and approach (including the underlying assumptions the agency used and the rationale and basis for those assumptions).

Direct costs were calculated by multiplying the number of affected establishments by average compliance costs based on various manufacturer list prices and information provided by industry and Cal/OSHA staff. Direct benefits to businesses were calculated by multiplying the number of affected businesses by estimates of avoided worker productivity losses due to occupational heat exposure based on peer-reviewed economic literature. Direct benefits to individuals were calculated based on the number of past worker compensation claims for heat-related illness -- scaled-up to account for underreporting based on federal agency studies and peer-reviewed literature -- multiplied by willingness-to-pay measures for avoided occupational heat-related illnesses and fatalities based on federal agency guidance and peer reviewed economic literature. The estimated number of days that employers will need to undertake compliance actions is based on future projections of the number of extreme heat days provided by the Centers for Disease Control and Prevention's National Environmental Public Health Tracking Network. Economy-wide impacts were estimated using IMPLAN's 2018 model year data for the California economy.

Agency Signature	Date
Katrina S. Hagen	09-08-2021

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