STATE OF CALIFORNIA GAVIN NEWSOM, Governor

DEPARTMENT OF INDUSTRIAL RELATIONS Occupational Safety and Health Standards Board 2520 Venture Oaks Way, Suite 350 Sacramento, CA 95833

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TITLE 8. CALIFORNIA CODE OF REGULATIONS

General Industry Safety Orders TITLE 8: New Sections 3205, 3205.1, 3205.2, and 3205.3 (Published on July 29, 2022)

COVID-19 Prevention

NOTICE IS HEREBY GIVEN that the Occupational Safety and Health Standards Board (Board, or OSHSB) proposes to adopt, amend or repeal the foregoing provisions of title 8 of the California Code of Regulations (CCR) in the manner described in the Informative Digest, below.

PUBLIC HEARING

The Board will hold a public hearing starting at 10:00 a.m. on **September 15, 2022,** in the **Coastal Hearing Room** of the **Cal/EPA Building at 1001 I Street, Sacramento, California** as well as via the following:

- Video-conference at www.webex.com (meeting ID 268 984 996)
- Teleconference at (844) 992-4726 (Access code 268 984 996)
- Live video stream and audio stream (English and Spanish) at https://videobookcase.com/california/oshsb/

At this public hearing, any person may present statements or arguments orally or in writing relevant to the proposed action described in the Informative Digest.

WRITTEN COMMENT PERIOD

In addition to written or oral comments submitted at the public hearing, written comments may also be submitted to the Board's office. The written comment period commences on **July 29, 2022,** and closes at 5:00 p.m. on **September 15, 2022**. Comments received after that deadline will not be considered by the Board unless the Board announces an extension of time in which to submit written comments. Written comments can be submitted as follows:

By mail to Sarah Money, Occupational Safety and Health Standards Board, 2520 Venture Oaks Way, Suite 350, Sacramento, CA 95833; or

By e-mail sent to <u>oshsb@dir.ca.gov.</u>

AUTHORITY AND REFERENCE

Labor Code section 142.3 establishes the Board as the only agency in the State authorized to adopt occupational safety and health standards. In addition, Labor Code section 142.3 requires the adoption of occupational safety and health standards that are at least as effective as federal occupational safety and health standards. Section 142.3 permits the Board to prescribe suitable protective equipment and control or technological procedures to be used in connection with occupational hazards and to provide for monitoring or measuring employee exposure for the protection of employees. Section 142.3(c) also requires standards to include specific warnings to ensure that employees are apprised of all hazards to which they are exposed, and medical testing to assess exposure at no cost to the employee. These proposed regulations will implement, interpret, and make specific Labor Code section 142.3.

Additionally, Labor Code section 144.6 requires the Board, when dealing with standards for toxic materials and harmful physical agents (includes biological agents – bacteria, virus, fungus, etc.), 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." Section 144.6 also requires that the Board base standards on research, demonstrations, experiments and other appropriate information, taking into consideration the latest scientific literature, the reasonableness of the standards, and the experience gained under the health and safety laws.

Labor Code section 6409.6, among other things, requires employers to provide certain written notification to employees, employers of subcontracted employees, and employees' exclusive representative of potential exposure to COVID-19, as well as notification on the employer's disinfection and safety plan.

Authority: Labor Code section 142.3.

Reference: Labor Code sections 142.3, 144.6, and 6409.6.

INFORMATIVE DIGEST OF PROPOSED ACTION/ POLICY STATEMENT OVERVIEW

On May 20, 2020, the Board received Petition 583 (the Petition), filed by Worksafe and the National Lawyers' Guild, Labor & Employment Committee (Petitioners), requesting the Board amend title 8 standards to create new temporary emergency standards. Petitioners requested the Board provide specific protections to California employees who may have exposure to

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¹ Occupational Safety and Health Standards Board (OSHSB). Petition 583 submitted by Worksafe and the Labor & Employment Committee of the National Lawyers Guild. https://www.dir.ca.gov/oshsb/documents/petition-583.pdf

COVID-19, but who are not protected by the Aerosol Transmissible Diseases (ATD) standards (sections 5199 and 5199.1).

The Board directed Board staff to prioritize the evaluation of this petition and the efficacy of existing regulations to address the health and safety of workers in the wake of the novel coronavirus. The evaluation process included an analysis of current regulations, finding that while protections exist in the title 8 ATD standards, they are limited in scope primarily to medical facilities. Employers not included in the scope of the ATD standards have generally applicable requirements, which include the Injury and Illness Prevention Program (IIPP) (section 3203), Washing Facilities (sections 1527, 3366, 3457, and 8397.4), Personal Protective Equipment (PPE) (section 3380), Respiratory Protection (section 5144), Sanitation (article 9), and Control of Harmful Exposures (section 5141).

While existing regulations (such as IIPP, section 3203) require employers to protect workers from harmful exposures, they do not necessarily identify specific measures that must be taken to fight the spread of a novel infectious disease. Instead, the responsibility is placed on employers, given their intimate knowledge of the hazards at issue and the workings of the place of employment, to devise such methods or procedures.

Throughout the course of the pandemic, the Division of Occupational Safety and Health (Division, or Cal/OSHA) issued guidance for employers regarding safe reopening. This guidance, much of which was issued jointly with other state agencies, included industry-specific information. Nonetheless, cases began to rise precipitously in October and November 2020. Guidance was not sufficient to address the increase in cases and the risk of occupational spread. Furthermore, the proposed emergency regulations introduced specific requirements, such as employer-provided testing, that were critical to reduce occupational spread during the ongoing rise in infections. The threat of exponential growth in COVID-19 cases demanded immediate action.

During its September 17, 2020, meeting, the Board considered the Petition, which requested an emergency rulemaking to address the potential harm posed to workers by COVID-19. ² The Petition sought adoption of an emergency standard that would apply to employees in any facility, service category, or operation not covered by title 8, sections 5199 or 5199.1. In addition, the Petition sought a permanent regulation to protect employees from infectious diseases, including those caused by novel pathogens. Given the unprecedented nature of the COVID-19 pandemic, and informed by analysis performed by Board staff and the Division, at the September 17, 2020, meeting, the Board found a specific emergency regulation in title 8 was necessary to provide clear instructions to employers and employees on what needs to be done to protect workers from COVID-19, eliminating any confusion and enhancing compliance. The Board requested the Division work with Board staff to expeditiously submit a proposal for an

² OSHSB. Petition 583 submitted by Worksafe and the Labor & Employment Committee of the National Lawyers Guild. https://www.dir.ca.gov/oshsb/documents/petition-583.pdf.

emergency regulation to protect all workers not covered by sections 5199 and 5199.1 from COVID-19 exposure in the workplace, for consideration no later than the November 19, 2020, Board meeting.

The Board voted to grant Petition 583 in part, agreeing that "COVID-19 is a hazard to working people" and that "an emergency regulation would enhance worker safety." The Board requested that the Division draft an emergency rulemaking proposal to protect all workers not covered by section 5199 from COVID-19 exposure in the workplace. ³

On November 19, 2020, the Board approved the adoption of title 8 sections 3205 and 3205.1 – 3205.4. These emergency regulations became effective on November 30, 2020. Due to the ongoing nature of the pandemic, the need for the emergency temporary standard (ETS) continued.

The ETS was readopted, with amendments, on June 17, 2021, and December 16, 2021, with effective dates of June 17, 2021, and January 14, 2022, respectively.

On December 16, 2021, Governor Gavin Newsom issued Executive Order N-23-21, which waived the limitations found in Government Code section 11346.1(h) and allowed a third readoption of the ETS. ⁴ The ETS was again readopted, with amendments, on April 21, 2022, with an effective date of May 6, 2022. Per Executive Order N-23-21, the third readoption of the ETS shall not remain in effect beyond December 31, 2022.

The specific changes are as follows:

New Section 3205. COVID-19 Prevention.

Proposed section 3205 sets forth the requirements COVID-19 prevention in places of employment.

Proposed subsection (a) limits the effective time of the proposed regulation to two years after its effective date (except for the recordkeeping provisions, which will apply for three years after the regulation's effective date). Subsection (a) also sets forth exceptions to the proposed regulation's general application for the following settings: work locations with one employee who does not have contact with other persons; employees working from home; employees with occupational exposure as defined by section 5199, when covered by section 5199; and employees teleworking from a location of the employee's choice, which is not under the control of the employer. The intended effect of this subsection is to inform the regulated public of the

³ OSHSB. Petition 583 Adopted Decision. https://www.dir.ca.gov/oshsb/documents/petition-583-adopteddecision.pdf

⁴ Governor Gavin Newsom. Executive Order N-23-21. https://www.gov.ca.gov/wp-content/uploads/2021/12/12.16.21-ETS-Readoption-and-Shareholder-Meeting-EO.pdf

duration of the proposed regulation's application as well as the exceptions to the regulation's coverage.

Proposed subsection (b) provides definitions for terms used in sections 3205 through 3205.3. The effect of these definitions is to establish the exact meanings for the terms as used within the context of the requirements of these sections. They are necessary to clarify that the terms, as used, may have more specific meaning in the context of COVID-19 prevention in the workplace than they would in the more general usage.

Proposed subsection (c) requires that employers address COVID-19 under section 3203, IIPP. The written COVID-19 procedures may be integrated into the employer's written IIPP or kept as a separate document. The employer must treat all persons as potentially infectious regardless of symptoms, vaccination status, or negative COVID-19 test results. When determining measures to prevent COVID-19 transmission and to identify and correct COVID-19 hazards, the employer must review applicable orders and guidance from the State of California and the local health department and must treat COVID-19 as an airborne infectious disease. Employees must receive training regarding COVID-19. The employer's procedure to investigate COVID-19 illness at the workplace must include elements set forth in the regulation. The employer must have effective methods and/or procedures for responding to a COVID-19 case at the workplace. The intended effect of this subsection is to inform the regulated public of the specific obligations associated with applying section 3203 in the context of COVID-19 prevention.

Proposed subsection (d) requires that employers make COVID-19 tests available at no cost, during paid time, to all employees of the employer who had a close contact in the workplace, with the exception of returned cases, as defined in the regulation, and provide them with information on available benefits. The intended effect of this subsection is to increase incentives for regular testing, which is a critical component of preventing the spread of COVID-19 in the workplace.

Proposed subsection (e) requires that employers notify employees and independent contractors who had a close contact, as well as any employer with an employee who had a close contact. The notice must be provided as soon as possible, and in no case longer than the time required to ensure that the exclusion requirements are met. When Labor Code section 6409.6(a) or any successor law is in effect, the employer must provide notice of a COVID-19 case to employees, employers, and independent contractors at the worksite during the infectious period, as defined in the regulation. The employer must also provide the notice to the authorized representative of employees at the worksite. The intended effect of this subsection is to ensure that employers provide timely notice of exposure to a COVID-19 case to all possible workplace close contacts, and to clarify and make specific that employers must comply with the notice requirements of Labor Code section 6409.6. Recordkeeping will make contact tracing possible, and contact tracing is an important intervention for preventing transmission.

Proposed subsection (f) requires that employers provide face coverings and ensure they are worn by employees when required by a California Department of Public Health (CDPH) regulation or order. When a CDPH regulation or order requires face coverings indoors, that includes spaces within vehicles. Face coverings must be clean, undamaged, and worn over the nose and mouth. If an employee is not wearing a face covering pursuant to allowed exceptions, the employer must assess COVID-19 hazards and take necessary action. The employer must not prevent any employee from wearing a face covering, including a respirator, when not required by the regulation, unless it would create a safety hazard. The intended effect of this subsection is to provide the regulated public with clarity regarding the use of face coverings, which are an important non-pharmaceutical intervention to prevent COVID-19 transmission in the workplace.

Proposed subsection (g) states that, upon request, employers must provide respirators for voluntary use to all employees who are working indoors or in vehicles with more than one person. Whenever an employer makes respirators for voluntary use available, the employer must encourage their use and must ensure that employees are provided with a respirator of the correct size and that employees are trained how to properly wear the respirator provided; how to perform a user seal check according to the manufacturer's instructions each time a respirator is worn; and the fact that facial hair interferes with a seal. The intended effect of this subsection is to clarify the requirements regarding the provision and use of respirators for voluntary use. As with other forms of face coverings, respirators for voluntary use represent an important intervention to prevent COVID-19 transmission in the workplace. However, respirators must be fitted and used properly to provide the intended level of protection. This subsection, therefore, will ensure that employers understand their obligations not only to provide respirators for voluntary use upon request, but also to train employees on respirator use and fit.

Proposed subsection (h) sets forth requirements relating to air quality and ventilation in indoor workplaces. Employers must review guidance from CDPH and the Division regarding ventilation, evaluate whether current ventilation is adequate to reduce the risk of transmission if a COVID-19 case enters the workplace, and where it is not adequate, implement changes as necessary. In vehicles, the employer must maximize the supply of outside air, except when doing so would cause a hazard to employees or expose them to inclement weather. A place of employment subject to COVID-19 outbreaks provisions must continue to comply with the ventilation requirement under the COVID-19 outbreaks section even after the outbreak has passed. The intended effect of this subsection is to ensure that employers will improve ventilation at their worksites. Improved ventilation has been shown to reduce COVID-19 transmission.⁵

⁵ United States Environmental Protection Agency (EPA). Ventilation and Coronavirus (COVID-19). Accessed on November 6, 2020. https://www.epa.gov/coronavirus/ventilation-and-coronavirus-covid-19; CDC. COVID-19

Employer Information for Office Buildings, Updated April 7, 2021. Accessed on May 18, 2022.

Proposed subsection (i) addresses employees in work settings that are exempt from section 5199, who are exposed to procedures that may aerosolize potentially infectious material such as saliva or respiratory tract fluids. Under this subsection, employers must evaluate the need for respiratory protection to prevent COVID-19 transmission under section 5144 and must comply with that section. The intended effect of this subsection is to ensure that employers take additional steps to protect employees who are exempt from section 5199, but are nonetheless exposed to aerosolizing procedures that could potentially transmit COVID-19, from COVID-19 transmission.

Proposed subsection (j) describes the reporting and recordkeeping requirements of the proposed section. Employers must report information about COVID-19 cases and outbreaks at the workplace to the local health department whenever required by law, and must provide any related information requested by the local health department. The employer must keep a record of and track all COVID-19 cases with information required by the regulation. The employer must also keep a record of persons who had a close contact. The employer must retain the notices required by the regulation. Personal identifying information of COVID-19 cases or persons with COVID-19 symptoms, and any employee medical records required by the regulation, must be kept confidential unless disclosure is required or permitted by law. The intended effect of this subsection is to inform employers of their specific reporting and recordkeeping obligations with respect to COVID-19 cases and close contacts. Recordkeeping makes contact tracing possible, and contact tracing is a key component of combatting community and workplace transmission of COVID-19.

Proposed subsection (k) provides that the Division may, pursuant to title 8, section 332.3, require an employer to take additional actions to protect employees against COVID-19 hazards through the issuance of an Order to Take Special Action. The intended effect of this subsection is to make explicit that the Division can use section 332.3 as another tool in preventing COVID-19 transmission in the workplace.

New Section 3205.1. COVID-19 Outbreaks.

Proposed section 3205.1 sets forth requirements for COVID-19 outbreaks.

Subsection (a) describes the scope of proposed section 3205.1, clarifying that it applies to workplaces covered by section 3205 if three or more employee COVID-19 cases within an exposed group, as defined in the regulation, visited the workplace during their infectious period during a 14-day period, unless a CDPH regulation or order defines outbreak differently, in which case this section applies when the number of cases at the workplace constitutes an outbreak under CDPH's definition. This section applies until there are no new COVID-19 cases detected in

the exposed group for a 14-day period. The intended effect of this subsection is to inform the regulated public about the conditions under which the proposed regulation applies to workplaces covered by proposed section 3205.

Proposed subsection (b) sets forth the requirements for testing during a workplace outbreak: the employer must make COVID-19 testing available at no cost to employees within the exposed group, and then make testing available on a weekly basis to all employees in the exposed group who remain at the workplace. Employees who had close contacts must provide a negative COVID-19 test taken within three to five days after the close contact or must be excluded from the workplace for the same period that COVID-19 cases are excluded. The intended effect of this subsection is to ensure that employers follow increased testing guidelines when outbreaks occur at their workplace.

Proposed subsection (c) and (d) address the use of face coverings during outbreaks: under subsection (c), employees in the exposed group must wear face coverings when indoors, or when outdoors and less than six feet from another person, while under subsection (d) the employer must notify employees of their right to request and receive a respirator for voluntary use. The intended effect of both subsections is to increase the use of face coverings and respirators for voluntary use (if requested) to slow or stop transmission of COVID-19 during an outbreak.

Proposed subsection (e) describes the actions an employer must take to investigate, review, and correct hazards relating to COVID-19 outbreaks. The employer must immediately perform a review of potentially relevant COVID-19 policies, procedures, and controls and implement changes as needed to prevent further spread of COVID-19. The intended effect of this subsection is to ensure that an investigation and review is conducted and COVID-19 hazards are identified and corrected to control and prevent further spread of COVID-19 in a workplace in which an outbreak has occurred.

Proposed subsection (f) addresses ventilation in the outbreak context. Indoors, if there is mechanical ventilation, the employer must use at least Minimum Efficiency Reporting Value (MERV)-13 filters, or the highest level of filter compatible with the existing ventilation system. The employer must use High Efficiency Particulate Air (HEPA) units in indoor areas where ventilation is inadequate to reduce the risk of COVID-19 transmission. The intended effect of this subsection is to reduce employee exposure to COVID-19 in the workplace by improving ventilation, as filtering the air reduces the concentration of potentially infectious material in the indoor air.

Proposed subsection (g) addresses major outbreaks. A major outbreak has occurred when there are 20 or more employee COVID-19 cases in an exposed group within a 30-day period. COVID-19 testing must be required of all employees in the exposed group at least twice a week. Employees in the exposed group must be tested or must be excluded from the workplace for the same period that COVID-19 cases are excluded. The employer must report the outbreak to

the Division. The employer must provide respirators for voluntary use to employees in the exposed group, encourage their use, and provide employees training on the respirators. When any employees in the exposed group are not wearing respirators required by the employer, the employer must separate these employees from other persons by at least six feet, except where not feasible or during momentary exposure while persons are in movement. The intended effect of this subsection is to ensure that, in major outbreak situations, employers take specific additional precautions in addition to the precautions required for outbreaks: testing more employees, more frequently; reporting major outbreaks to the Division; providing respirators for voluntary use, encouraging the use of respirators, and training employees on the use of respirators; and requiring distancing measures for employees who do not wear respirators when required by the employer.

New section 3205.2. COVID-19 Prevention in Employer-Provided Housing.

Proposed section 3205.2 sets forth the requirements for COVID-19 prevention in employer-provided housing.

Proposed subsection (a) limits the effective time of the proposed section, and defines "employer-provided housing." The intended effect of this subsection is to inform the regulated public of the duration of the proposed regulation's application, and to clarify what constitutes employer-provided housing for purposes of this section. Proposed subsection (a) also includes four exceptions to coverage. The first exemption, housing that is provided for emergency response and support activities, recognizes that the imminent risks associated with an emergency response operation supersede the risks associated with not enforcing the proposed housing requirements in emergency-response operations. The second exemption, housing in which all residents maintained a household together before living in employer-provided housing (for example, family members), recognizes that individuals who maintain a household together are assumed to spend time in close proximity to one another within their household. The third exemption, employees with occupational exposure as defined by section 5199, when covered by section 5199, clarifies that the requirements of section 5199, rather than proposed section 3205.2, apply to employees covered by section 5199. Finally, the fourth exemption, housing used exclusively to house COVID-19 cases or where a housing unit houses one employee, recognizes the reality that these two housing conditions do not present a great risk of potential transmission of COVID-19 to their resident(s).

Proposed subsection (b) requires employers to assign employee housing in a manner that prioritizes keeping households, and cohorts that work or travel together, within the same housing unit. The intended effect of this proposed subsection is to reduce the spread of COVID-19 transmission in both the workplace and employer-provided housing by minimizing the number of different individuals who come into close contact with each other.

Proposed subsection (c) requires that employers maximize the quantity and supply of outdoor air and increase filtration efficiency to the highest level compatible with the existing ventilation system. If there is not a MERV-13 or higher filter in use, portable or mounted HEPA filtration units must be used in all sleeping areas. The intended effect of this proposed subsection is to reduce the indoor concentration of the virus, thereby reducing the risk of employee exposure to COVID-19 in each employer-provided housing unit. Evidence exists that increased ventilation and air filtration, when used along with the other control measures, such as face coverings and cleaning, can reduce risk from airborne transmission of COVID-19.6 In shared sleeping areas, where people remain for hours without face coverings, filtration is especially valuable.

Proposed subsection (d) requires employers to provide face coverings to all residents and provide information to residents on when they should be used. The intended effect of this subsection is to encourage the use of face-coverings, which are a non-pharmaceutical intervention that has been shown to reduce transmission of COVID-19.

Proposed subsection (e) requires employers to encourage residents to report COVID-19 symptoms to the employer. The intended effect of this subsection is to allow employers to respond effectively to employee symptoms to prevent or reduce the risk of transmission of COVID-19 in the workplace and employer-provided shared housing units.

Proposed subsection (f) requires employers to establish, implement, and maintain effective policies and procedures for COVID-19 testing of residents who had a close contact or COVID-19 symptoms, and communicate these policies and procedures to the residents. The intended effect of this subsection is to minimize the transmission of COVID-19 in employer-provided housing; diagnostic testing identifies which residents are infected and need isolation to prevent further spread to employees and residents.

Proposed subsection (g) requires employers to isolate COVID-19 cases from all residents who are not COVID-19 cases, and effectively quarantine persons who had a close contact from all other residents in the employer-provided shared housing unit. The intended effect of this subsection is to limit transmission of COVID-19 in the workplace and employer-provided housing by requiring that residents who are COVID-19 cases isolate to further prevent the spread to other residents

New section 3205.3. COVID-19 Prevention in Employer-Provided Transportation.

⁶ United States Environmental Protection Agency (EPA). Ventilation and Coronavirus (COVID-19). Accessed on November 6, 2020. https://www.epa.gov/coronavirus/ventilation-and-coronavirus-covid-19; CDC. COVID-19 Employer Information for Office Buildings, Updated April 7, 2021. Accessed on May 18, 2022. https://www.cdc.gov/coronavirus/2019-ncov/community/office-buildings.html

Proposed section 3205.3 sets forth the requirements for COVID-19 prevention in employer-provided transportation.

Proposed subsection (a) limits the effective time of the proposed section, and defines "employer-provided transportation." The intended effect of this subsection is to inform the regulated public of the duration of the proposed regulation's application, and to clarify what constitutes employer-provided transportation for purposes of this section. Proposed subsection (a) also includes three exceptions to coverage. The first exception, which applies to employees alone in a vehicle, employees taking public transportation, or vehicles in which the driver and all passengers are from the same household outside of work, recognizes that: a lone driver in a vehicle neither is at risk of a COVID-19 exposure nor presents a potential risk of COVID-19 exposure to other employees; public transit is dissimilar to other forms of employer-provided transportation because employers lack direct control over public transportation; and individuals who maintain a household together are assumed to spend time in close proximity to one another within their household. The second exception, employer-provided transportation for emergency response, recognizes that the imminent risks associated with an emergency response operation supersede the risks associated with not enforcing the proposed transportation requirements in emergency-response operations. Finally, the third exception, employees with occupational exposure as defined by section 5199, when covered by section 5199, clarifies that the requirements of section 5199, rather than proposed section 3205.3, apply to employees covered by section 5199.

Proposed subsection (b) requires employers to comply with the requirements of section 3205 within a vehicle and respond to a COVID-19 case within the vehicle in accordance with the requirements of section 3205. The intended effect of this subsection is to minimize employees' exposure to COVID-19 hazards in employer-provided motor vehicle transportation, because being in a vehicle with another person represents a condition in which airborne transmission of COVID-19 may occur.

Proposed subsection (c) requires employers to assign transportation such that cohorts travel and work together, separate from other workers. To the extent feasible, employees who usually maintain a household together must travel together. The intended effect of this subsection is to limit the number of different individuals who come into close contact with each other while using employer-provided transportation, recognizing that individuals who maintain a household together are assumed to spend time in close proximity to one another within their household.

Federal Regulations and Statutes

There is no existing federal Occupational Safety and Health Administration (OSHA) standard that governs airborne exposure to infectious disease such as SARS-CoV-2 in general industry.

However, the federal Occupational Safety and Health Act of 1970's General Duty Clause, section 5(a)(1), requires employers to provide their workers with a safe and healthful workplace free from recognized hazards that are causing or are likely to cause death or serious physical harm. Federal OSHA has used the General Duty Clause to address conditions that are not subject to other federal regulations, such as exposure to harmful airborne pathogens, such as SARS-CoV-2. From September 9, 2020, to November 11, 2021, federal OSHA issued 26 COVID-19 related citations under the General Duty Clause. However, federal OSHA has concluded that it was not adequate to protect employees, particularly unvaccinated employees, from the grave danger of being infected by, and suffering death or serious health consequences from, COVID-19. Under the General Duty Clause, federal OSHA cannot require abatement before proving in the enforcement proceeding that an existing condition at the workplace is hazardous. The proposed regulation would allow Cal/OSHA to cite employers for each protective requirement not implemented without the need to wait for employee infection or death to prove in an enforcement proceeding that the particular cited workplace was hazardous without that particular measure in place.

Other federal OSHA regulations, such as those governing respiratory protection (29 Code of Federal Regulations (CFR) section 1910.134), sanitation and washing facilities (29 CFR section 1910.141), PPE (29 CFR sections 1910.132, 1910.133, and 1910.138), employee access to medical and exposure records (29 CFR section 1910.1020), and the mandatory COVID-19 Health Care ETS which became effective June 21, 2021 (29 CFR section 1910.502), are similar to their counterpart regulations in title 8 of the CCR. The federal OSHA regulation governing temporary labor camps (29 CFR section 1920.142) is more detailed than its counterpart regulation in title 8, section 3350.

Evaluation of Inconsistency/Incompatibility with Existing State Regulation

The Board evaluated the proposed regulations pursuant to Government Code subsection 11346.5(a)(3)(D) and has determined that the regulations are not inconsistent or incompatible with existing state regulations. This proposal is part of a system of occupational safety and health regulations. The consistency and compatibility of that system's component regulations is provided by such things as: (1) the requirement of the federal government and the Labor Code that the State regulations be at least as effective as their federal counterparts, and (2) the requirement that all state occupational safety and health rulemaking be channeled through a single entity (the Board).

Anticipated Benefits

COVID-19 is a pandemic disease, found in every county in California, every state in the United States, and nearly every country in the world. While a high percentage of individuals affected

by COVID-19 will experience mild to moderate flu-like symptoms, some will have more serious symptoms and will require hospitalization, particularly individuals who are elderly or have underlying medical conditions.⁷ Serious symptoms of COVID-19 include shortness of breath, difficulty breathing, pneumonia, and organ failure, and COVID-19 can result in death.⁸ The virus can damage the lungs, heart, and brain, and can cause long-term health problems.⁹

As of April 19, 2022, there have been 8,550,657 cases of COVID-19 and 89,054 COVID-19 deaths in California. The case numbers represent an undercount, as the data include only cases identified by a positive polymerase chain reaction (PCR) test and exclude cases identified by a positive antigen test. 11

The SARS-CoV-2 virus that causes COVID-19 is an airborne transmissible pathogen. ^{12, 13} The virus is readily transmissible in workplaces because there are areas where multiple people come into contact with one another, often for extended periods of time. When employees report to their workplaces, they may regularly come into contact with co-workers, the public, delivery people, patients, and other people who enter the workplace. Workplace factors that exacerbate the risk of transmission of the virus include working in indoor settings, working in poorly ventilated areas, and spending hours in close proximity with others. Even in the cases where workers can do most of their work from, for example, a private office within a workplace, they share common areas like hallways, restrooms, lunch rooms, and meeting rooms. Many work areas are poorly ventilated.

Data for the number of cases of COVID-19 infection and number of hospitalizations and deaths attributable to workplace exposure to COVID-19 is not currently available; however, the numbers are likely substantial, particularly among essential workers and other employees who

doi:10.1001/jama.2020.12839. Accessed April 21, 2022.

⁷ Centers for Disease Control and Prevention (CDC). Evidence used to update the list of underlying medical conditions that increase a person's risk of severe illness from COVID-19, updated February 15, 2022. Accessed on April 21, 2022. https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/evidence-table.html
⁸ Wiersinga WJ, Rhodes A, Cheng AC, Peacock SJ, Prescott HC. Pathophysiology, Transmission, Diagnosis, and Treatment of Coronavirus Disease 2019 (COVID-19): A Review. JAMA. July 10, 2020; 324(8):782–793.

https://jamanetwork.com/journals/jama/fullarticle/2768391

⁹ CDC. Post-COVID Conditions, updated September 16, 2021. Accessed 4-21-22. https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects/index.html

¹⁰ California Department of Public Health (CDPH). Tracking COVID-19 in California. "Today's Update," updated April 19, 2022. Accessed April 20, 2022. . https://web.archive.org/web/20220420212321/https://covid19.ca.gov/state-dashboard/

¹¹ California Health and Human Services (CHHS). COVID-19 Cases Deaths Tests Data Dictionary, updated March 20, 2021; accessed February 10, 2022. https://data.chhs.ca.gov/dataset/f333528b-4d38-4814-bebb-12db1f10f535/resource/e6667716-5ec6-499f-aeab-0e085020135a/download/covid-19">https://data.chhs.ca.gov/dataset/f333528b-4d38-4814-bebb-12db1f10f535/resource/e6667716-5ec6-499f-aeab-0e085020135a/download/covid-19">https://data.chhs.ca.gov/dataset/f333528b-4d38-4814-bebb-12db1f10f535/resource/e6667716-5ec6-499f-aeab-0e085020135a/download/covid-19">https://data.chhs.ca.gov/dataset/f333528b-4d38-4814-bebb-12db1f10f535/resource/e6667716-5ec6-499f-aeab-0e085020135a/download/covid-19">https://data.chhs.ca.gov/dataset/f333528b-4d38-4814-bebb-12db1f10f535/resource/e6667716-5ec6-499f-aeab-0e085020135a/download/covid-19">https://data.chhs.ca.gov/dataset/f333528b-4d38-4814-bebb-12db1f10f535/resource/e6667716-5ec6-499f-aeab-0e085020135a/download/covid-19">https://data.chhs.ca.gov/dataset/f333528b-4d38-4814-bebb-12db1f10f535/resource/e6667716-5ec6-499f-aeab-0e085020135a/download/covid-19">https://data.chhs.ca.gov/dataset/f333528b-4d38-4814-bebb-12db1f10f535/resource/e6667716-5ec6-499f-aeab-0e085020135a/download/covid-19"

¹² An airborne transmissible pathogen is a pathogen transmitted through dissemination of airborne droplet nuclei, small particle aerosols, or dust particles containing the disease agent.

¹³ CDC. Scientific Brief: SARS-CoV-2 Transmission. May 7, 2021. Accessed April 23, 2022. https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/sars-cov-2-transmission.html

interact with the public, due to workers' exposure to persons outside of one's household, along with the close proximity among persons practiced in some industries.

Employees infected with COVID-19 at work can transmit the infection to persons in their homes and communities, resulting in an increase in infection rates.

Clusters and outbreaks of COVID-19 have occurred in workplaces throughout California, including in food manufacturing, agricultural operations, educational services, retail establishments, and warehouses, among other industries.

There has been an overrepresentation of migrant temporary farmworkers testing positive for COVID-19 in California compared with workers in other industries. Many of these workers live in compact, dorm-like housing facilities provided by employers. ¹⁴ One California health officer noted that "farmworkers face the greatest infection risk not at work, but at home." ¹⁵ In recognition of the need to control against the spread of COVID-19 among farmworkers, Governor Newsom unveiled the Housing for the Harvest program, which provides 14 paid days of temporary hotel rooms for California farmworkers who have been exposed to, or tested positive for, COVID-19 but are unable to adequately quarantine at home. ¹⁶ In addition, the Centers for Disease Control and Prevention (CDC) has published COVID-19 prevention guidance documents encouraging employers to adopt various workplace control measures for workers residing in communal living arrangements, including employer-furnished housing, and workers traveling to and from work in shared motor vehicles. ¹⁷

Occupational safety and health standards within title 8 of the CCR protect workers from hazards in general. However, other than those employees who are covered under section 5199, there is currently no specific regulation that protects all workers from exposure to airborne diseases such as COVID-19.

¹⁴ VC Star. Farmworker housing coronavirus outbreak: 188 test positive for COVID-19, dated July 4, 2020. Accessed on November 6, 2020. https://www.vcstar.com/story/news/local/2020/07/03/oxnard-california-farmworker-housing-covid-19-coronavirus-outbreak/5368774002/

¹⁵ The Californian. COVID-19 rips through California motel rooms of guest workers who pick nation's produce, dated August 26, 2020. Accessed on November 6, 2020. https://www.thecalifornian.com/story/news/2020/08/17/california-motel-guest-farm-workers-coronavirus-case-outbreak/5475182002/

¹⁶ State of California. Help for agricultural workers, Housing for the Harvest, updated March 22, 2022. Accessed April 20, 2022. https://covid19.ca.gov/housing-for-agricultural-workers/

¹⁷ CDC. Agriculture Workers & Employers, updated November 6, 2020. Accessed on April 20, 2022. https://web.archive.org/web/20201106163831/https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-agricultural-workers.html CDC. COVID-19 Guidance for Shared or Congregate Housing, updated Aug. 22, 2020. Accessed on April 20, 2022. https://web.archive.org/web/20201106144800/https://www.cdc.gov/coronavirus/2019-ncov/community/shared-congregate-house/guidance-shared-congregate-housing.html

The proposed regulation is necessary to combat the spread of COVID-19 in California workers. The proposed regulation would significantly reduce the number COVID-19 related illnesses, disabilities and deaths in California's workforce.

COVID-19 vaccination has been shown to reduce the incidence of serious illness or death among those infected with COVID-19.¹⁸ However, a serious hazard to employees remains, as evidenced by the emergence of the Delta and Omicron variants of SARS-CoV-2. For the Delta variant, viral loads were found to be on average about 1,000 times greater than the SARS-CoV-2 (alpha) lineages present during the first months of the pandemic.¹⁹ The risk of hospital admission, intensive care unit (ICU) admission, and death for COVID-19 was much higher for individuals infected with the Delta variant, as compared to strains that were not "variants of concern." The need for ICU admission increased 241 percent and the likelihood of death increased 121 percent.²⁰

Beginning in December 2021 and continuing into April 2022, the Omicron variant emerged as dominant, proving at least two to four times more transmissible than the Delta variant.²¹

Exposure to the Omicron variant could result in "breakthrough infections" amongst vaccinated persons.²² The highly transmissible Omicron variant resulted in a surge of COVID-19 cases in late December 2021 into early to mid-January 2022, with levels of cases, emergency department visits, and hospital admissions higher than in previous stages of the pandemic and the average daily number of deaths remaining substantial.²³

¹⁸ Tenforde MW, Self WH, Adams K, et al. Association Between mRNA Vaccination and COVID-19 Hospitalization and Disease Severity. *JAMA*. November 4, 2021;326(20):2043–2054. Accessed on April 21, 2022. doi:10.1001/jama.2021.19499

¹⁹ Baisheng Li, et al. Viral infection and transmission in a large, well-traced outbreak caused by the SARS-CoV-2 Delta variant. Nat Commun. 2022 Jan 24;13(1):460. Accessed on April 21, 2022. https://pubmed.ncbi.nlm.nih.gov/35075154/

²⁰ Fisman DN and Tuite AR. Evaluation of the relative virulence of novel SARS-CoV-2 variants: a retrospective cohort study in Ontario, Canada. CMAJ. October 5, 2021. Accessed on April 21, 2022. https://pubmed.ncbi.nlm.nih.gov/34610919/

²¹ CDPH. Tracking Variants, dated February 3, 2022. Accessed on April 21, 2022. https://web.archive.org/web/20220207170746/https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/COVID-Variants.aspx

²² CDC. Omicron Variant: What You Need to Know, updated March 29, 2022. Accessed on April 21, 2022. https://www.cdc.gov/coronavirus/2019-ncov/variants/omicron-variant.html

²³ Iuliano AD, Brunkard JM, Boehmer TK, et al. Trends in Disease Severity and Health Care Utilization During the Early Omicron Variant Period Compared with Previous SARS-CoV-2 High Transmission Periods — United States, December 2020–January 2022. MMWR Morb Mortal Wkly Rep 2022;71:146–152. January 28, 2022. Accessed March 29, 2022. https://www.cdc.gov/mmwr/volumes/71/wr/mm7104e4.htm?scid=mm7104e4 w

Subvariants of Omicron, such as BA.2 and others, have been shown to be even more transmissible than the original Omicron variant.²⁴

Following recommended prevention strategies, therefore, is critical to preventing infections, severe illness, or death from COVID-19. Worker protections continue to be urgently needed in the event another variant emerges which can compete successfully with Omicron.

Due to changes in social norms and in federal, state, and local requirements that make mask-wearing and physical distancing voluntary, future adherence to these precautions is unlikely.²⁵ As COVID-19 vaccination has been shown to reduce the incidence of serious illness or death among those infected with COVID-19, unvaccinated employees will be particularly at risk for serious illness or death, especially given the spread of highly contagious SARS-CoV-2 variants, unless protective measures are taken.

At this time, non-emergency regulations are necessary to continue providing worker protections and furthering recovery from the pandemic. The emergence of variants like Delta and Omicron underscores that COVID-19 will likely remain a significant workplace hazard for potentially years to come. As COVID-19 continues to infect workers, the proposed rulemaking will reduce the number of COVID-19 infections in the workplace. This in turn will reduce deaths and illnesses among employees and within employees' communities. Lower transmission rates decrease the possibility of further state or locally-mandated shutdowns, along with the risk of outbreaks at places of employment. The proposed regulations will also reduce the financial costs caused by medical care and lost workdays, costs that may be borne by employees, their families, employers, insurers, and public benefits programs.

Thus, the benefits of the proposed regulation are two-fold:

- (1) Monetary benefits, including lowered costs to employers, insurers, employees, their families, and public benefits programs; and
- (2) Non-monetary benefits, including a reduction in the pain and suffering associated with COVID-19 illnesses and deaths for those affected, directly or indirectly, by COVID-19.

Current regulations are not sufficiently specific as to what employers are required to do during the COVID-19 pandemic. This results in confusion on behalf of both employers and employees, leaving many employees unprotected. This confusion causes the Division to expend staff

²⁴ Lyngse FP, Kirkeby CT, Denwood M, et al. Transmission of SARS-CoV-2 Omicron VOC subvariants BA.1 and BA.2: Evidence from Danish Households. medRxiv 2022.01.28.22270044. January 30, 2022. Accessed April 21, 2022. doi: https://www.medrxiv.org/content/10.1101/2022.01.28.22270044v1.full.pdf

²⁵ Bokemper SE, Cucciniello M, Rotesi T, et al. Experimental evidence that changing beliefs about mask efficacy and social norms increase mask wearing for COVID-19 risk reduction: Results from the United States and Italy. PLoS One. 2021; 16(10): e0258282. Published online October 11, 2021. Accessed April 21, 2022. https://doi.org/10.1371/journal.pone.0258282

resources to respond to questions that will be answered by title 8, new sections 3205 through 3205.3.

Controlling the spread of COVID-19 is a challenge. A person who is infected with COVID-19 may have no obvious symptoms, or no symptoms at all, yet still be infectious to others.

The Board is proposing new sections 3205 through 3205.3 to provide clear and specific requirements to employers so that they may better protect employees from the harmful effects of COVID-19; avoid a potential increase in COVID-19 related fatalities, serious illnesses, and long-term disabilities; and reduce related financial costs to employees, employers, insurers, public benefit programs, and taxpayers. The proposed regulations will mitigate costs associated with COVID-19-related company shut-downs, employee absences, hospitalizations, death, responding to agency investigations, increased workers' compensation insurance rates, personnel replacement expenses, and lost production.

DISCLOSURES REGARDING THE PROPOSED ACTION

Mandate on Local Agencies or School Districts: None.

Cost or Savings to State Agencies:

Based on information from the California Employment Development Department (EDD), there are approximately 13,600 state government establishments and more than 360,000 state employees covered by the proposed regulation. Table 4. Summary of Direct Costs for State Government Entities in 2023 by NAICS Code, published within the COVID-19 Prevention Initial Statement of Reasons available on the OSHSB website, reports the direct costs to state government entities in the first year of the proposed regulation by two-digit North American Industry Classification System (NAICS) code. The direct costs to state government entities in 2024 are anticipated to be similar to the costs in 2023 if COVID-19 infection rates remain the same. Information from Table 4. Summary of Direct Costs for State Government Entities in 2023 by NAICS Code is also listed below:

NAICS 51 – Information

21 Establishments, 96 Covered Employees, 2023 direct costs (primary estimate in millions) equal to <\$0.1, 2023 direct costs (high end estimate in millions) equal to <\$0.1.

NAICS 54 – Professional and Technical Services

96 Establishments, 3,483 Covered Employees, 2023 direct costs (primary estimate in millions) equal to <\$0.1, 2023 direct costs (high end estimate in millions) equal to \$0.3.

NAICS 56 - Administrative and Waste Services

31 Establishments, 930 Covered Employees, 2023 direct costs (primary estimate in millions) equal to <\$0.1, 2023 direct costs (high end estimate in millions) equal to <\$0.1.

NAICS 61 – Educational Services

3,598 Establishments, 213,142 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$6.1, 2023 direct costs (high end estimate in millions) equal to \$19.1.

NAICS 62 – Health Care and Social Assistance

1,053 Establishments, 8,729 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$0.7, 2023 direct costs (high end estimate in millions) equal to \$2.5.

NAICS 71 – Arts, Entertainment, and Recreation

25 Establishments, 480 Covered Employees, 2023 direct costs (primary estimate in millions) equal to <\$0.1, 2023 direct costs (high end estimate in millions) equal to <\$0.1.

NAICS 92 – Public Administration

8,789 Establishments, 134,341 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$9.1, 2023 direct costs (high end estimate in millions) equal to \$27.5.

TOTAL

13,613 Establishments, 361,201 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$16.1, 2023 direct costs (high end estimate in millions) equal to \$49.5.

Savings in the current State Fiscal Year.

The number of state and local employees that might avoid a COVID-19 infection due to the proposed regulation is highly uncertain. The Department of Industrial Relations (DIR) estimated nearly 1.8 million state and local employees, approximately 14 percent of all affected employees in California, are covered by the proposed regulation. To the extent that the proposed regulation improves the safety and health of public employees – resulting in fewer COVID-19 infections, hospitalizations, and fatalities – the proposed regulation would result in a significant cost savings for public entities. Given that many state and local employers are likely to be following existing public health orders and recommendations, the benefits to public employees may be smaller relative to the benefits to employees of privately-owned businesses. If the benefits of the proposed regulation were distributed proportional to employment in the private and public sectors, as many as 3,000 to 12,000 COVID-19 cases and 20 to 70 COVID-19 deaths of state employees would be avoided each year. This level of benefits would yield \$9 million to \$36 million in avoided productivity losses to state government entities. Additional benefits due to avoided COVID-19 deaths (not quantified here) would be realized by those state government employees and their employers.

<u>Cost to Any Local Government or School District Which Must be Reimbursed in Accordance</u> with Government Code Sections 17500 through 17630: None.

Other Nondiscretionary Cost or Savings Imposed on Local Agencies:

Based on information from the California EDD, there are approximately 19,200 local government establishments and more than 1.4 million local government employees covered by the proposed regulation. Table 5. Summary of Direct Costs for Local Government Entities in 2023 by NAICS Code within the COVID-19 Prevention Initial Statement of Reasons available on the OSHSB website, reports the direct costs to local government entities in the first year of the proposed regulation by NAICS code. The direct costs to local government entities in 2024 are anticipated to be similar to the costs in 2023 if COVID-19 transmission rates remain the same. Information from Table 5. Summary of Direct Costs for Local Government Entities in 2023 by NAICS Code is also listed below:

NAICS 11 – Agriculture, Forestry, Fishing and Hunting

7 Establishments, 79 Covered Employees, 2023 direct costs (primary estimate in millions) equal to <\$0.1, 2023 direct costs (high end estimate in millions) equal to <\$0.1.

NAICS 22 – Utilities

702 Establishments, 38,438 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$1.0, 2023 direct costs (high end estimate in millions) equal to \$3.2.

NAICS 23 – Construction

106 Establishments, 8,769 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$0.2, 2023 direct costs (high end estimate in millions) equal to \$0.7.

NAICS 44-45 – Retail Trade

11 Establishments, 253 Covered Employees, 2023 direct costs (primary estimate in millions) equal to <\$0.1, 2023 direct costs (high end estimate in millions) equal to <\$0.1.

NAICS 48-49 – Transportation and Warehousing

440 Establishments, 46,100 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$1.0, 2023 direct costs (high end estimate in millions) equal to \$3.6.

NAICS 51 – Information

188 Establishments, 8,334 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$0.2, 2023 direct costs (high end estimate in millions) equal to \$0.7.

NAICS 52 – Finance and Insurance

29 Establishments, 1,955 Covered Employees, 2023 direct costs (primary estimate in millions) equal to <\$0.1, 2023 direct costs (high end estimate in millions) equal to \$0.2.

NAICS 53 – Real Estate and Rental and Leasing

63 Establishments, 1,379 Covered Employees, 2023 direct costs (primary estimate in millions) equal to <\$0.1, 2023 direct costs (high end estimate in millions) equal to \$0.1.

NAICS 54 – Professional and Technical Services

66 Establishments, 873 Covered Employees, 2023 direct costs (primary estimate in millions) equal to <\$0.1, 2023 direct costs (high end estimate in millions) equal to <\$0.1.

NAICS 56 - Administrative and Waste Services

116 Establishments, 3,136 Covered Employees, 2023 direct costs (primary estimate in millions) equal to <\$0.1, 2023 direct costs (high end estimate in millions) equal to \$0.2.

NAICS 61 - Educational Services

14,192 Establishments, 843,728 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$24.3, 2023 direct costs (high end estimate in millions) equal to \$75.6.

NAICS 62 - Health Care and Social Assistance

406 Establishments, 22,819 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$1.6, 2023 direct costs (high end estimate in millions) equal to \$6.3.

NAICS 71 – Arts, Entertainment, and Recreation

304 Establishments, 34,590 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$0.7, 2023 direct costs (high end estimate in millions) equal to \$2.7.

NAICS 72 – Accommodation and Food Services

136 Establishments, 22,048 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$0.5, 2023 direct costs (high end estimate in millions) equal to \$1.7.

NAICS 81 – Other Services, excluding Public Administration

257 Establishments, 3,320 Covered Employees, 2023 direct costs (primary estimate in millions) equal to <\$0.1, 2023 direct costs (high end estimate in millions) equal to \$0.3.

NAICS 92 – Public Administration

2,224 Establishments, 297,128 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$13.6, 2023 direct costs (high end estimate in millions) equal to \$50.5.

TOTAL

19,247 Establishments, 1,332,950 Covered Employees, 2023 direct costs (primary estimate in millions) equal to \$43.4, 2023 direct costs (high end estimate in millions) equal to \$145.9.

Annual savings

The number of state and local employees that might avoid a COVID-19 infection due to the proposed regulation is highly uncertain. DIR estimated nearly 1.8 million state and local employees, approximately 14 percent of all affected employees in California, are covered by the proposed regulation. To the extent that the proposed regulation improves the safety and health of public employees - resulting in fewer COVID-19 infections, hospitalizations, and fatalities – the proposed regulation would result in a significant cost savings for public entities. Given that many state and local employers are likely to be following existing public health orders and recommendations, the benefits to public employees may be smaller relative to the benefits to employees of privately-owned businesses. However, DIR notes that the largest share of local government employees are in public education, which has accounted for onethird of all COVID-19 outbreaks that are not covered by section 5199. DIR estimated the proposed regulation would result in avoiding approximately 105,000 to 410,000 COVID-19 cases and 600 to 2,500 COVID-19 fatalities per year. If the benefits of the proposed regulation were distributed proportional to employment in the private and public sectors, as many as 11,000 to 44,000 COVID-19 cases and 70 to 270 COVID-19 deaths of local government employees would be avoided each year. This level of benefits would yield \$34 million to \$133 million in avoided productivity losses to local governments. Additional benefits due to avoided COVID-19 deaths (not quantified here) would be realized by those local government employees and their employers.

Cost or Savings in Federal Funding to the State: None.

Cal/OSHA staff have been enforcing occupational COVID-19 prevention requirements since February 2020. Cal/OSHA has issued guidance and conducted outreach to warn employers that COVID-19 is a workplace hazard under section 3203. Furthermore, Cal/OSHA staff are currently issuing citations to employers related to COVID-19 hazards based on the ETS, sections 3205-

3205.4. Therefore, while DIR assumed that the number and relative complexity and length of investigations would vary significantly with COVID-19 transmission rates, it did not anticipate that the level of enforcement activities would change relative to the no regulatory action baseline. The agency may realize a cost savings if the proposed regulation effectively reduces transmission rates in the workplace, decreasing the number of complaints that the agency receives and the number of investigations it conducts due to the pandemic.

<u>Cost Impacts on a Representative Private Person or Business:</u>

DIR estimates the reporting and recordkeeping requirements of the proposed regulation, including contact tracing investigations, would cost between \$20.9 million to \$83.7 million depending on projections of the baseline transmission rate of COVID-19 in the general population. A typical business will incur costs of approximately \$10 to \$50 per establishment. Many businesses will have no occupational COVID-19 exposures and will have no recordkeeping costs.

Statewide Adverse Economic Impact Directly Affecting Businesses and Individuals: Including the Ability of California Businesses to Compete:

The Board has made an initial determination that this proposal will not result in a significant, statewide adverse economic impact directly affecting businesses/individuals, including the ability of California businesses to compete with businesses in other states. The proposed regulation is unlikely to have a significant impact on the expansion of businesses currently operating in California. The estimated costs of the proposed regulation are relatively small on a per establishment basis; however, the additional requirements add to the costs of doing business in California. It is assumed that other reasons for doing business in California likely outweigh the costs associated with the proposed regulation. Furthermore, the proposed regulation will be unlikely to significantly impact the ability of California businesses to compete with businesses in other states, as COVID-19 poses a similar risk of illness to workers regardless of geographical location.

<u>Significant Affect on Housing Costs:</u> None.

SMALL BUSINESS DETERMINATION

The Board has determined that the proposed regulation may affect small businesses.

The California legislature defines small businesses as businesses that have fewer than 100 employees, are not dominant in their field, and are independently owned and operated (A.B. 1033, Ch. 346, 2016). Information is only available on the number of employees, rather than

ownership structure of individual business establishments. Based on information from the California EDD, among privately-owned companies in California approximately 98.8 percent of establishments have fewer than 100 employees. This may overstate the number of small businesses because some establishments may be owned or operated by larger companies or companies that are dominant in their field. Based on this information, DIR estimates that there are 1,579,472 small businesses affected by the proposed regulation.

The average expected costs for small businesses are estimated to be relatively small because most workplaces are not anticipated to experience widespread COVID-19 outbreaks. Businesses with employees that experience occupational COVID-19 exposures may incur additional costs—however, a portion of these costs are attributable to workers being unable to work due to an illness or hospitalization and are not directly attributable to the proposed regulation. The Board estimates that the average compliance cost for a small business will be between \$280 and \$850 in 2023, and between \$110 and \$400 in 2024.

RESULTS OF THE STANDARDIZED REGULATORY IMPACT ASSESSMENT

The creation or elimination of jobs in the state.

Statewide employment impacts of the proposed regulation may be positive or negative due to countervailing macroeconomic impacts. Businesses will increase spending on PPE and ventilation equipment and services, which may cut into corporate profits but will increase final demand in other industries that supply materials and services to those businesses. However, local supply may not be able to meet the increase in demand for these products, and California businesses will import a large share of manufactured goods from other states, resulting in a smaller impact to jobs in the state.

Other significant changes in final demand will result from both losses in business productivity due to time spent on compliance activities and worker absences due to requirements for testing and exclusion of COVID-19 cases and close contacts and losses in labor income due to workdays lost as a result of the requirements of the proposed regulation. These impacts will be offset by gains in business productivity and labor income due to reductions in COVID-19 transmission as a result of the proposed regulation (i.e., due to reductions in employee illnesses and absences and reductions in outbreaks), which will increase hours worked, benefitting business productivity and wages earned.

The efficacy of the various safety and prevention measures will impact the reduction in COVID-19 transmission rates and reduction in the number of workdays lost due to illnesses, thus boosting the overall economy. A key limitation of this analysis is that it does not account for benefits associated with the avoided loss of workers due to COVID-19 deaths. That number is significantly higher than the employment impacts estimated here. Therefore, DIR estimated that there will be a temporary change in employment that may be either positive or negative

depending on the rate of COVID-19 transmission and the number of workdays missed due to illness or mandated exclusion periods.

The direct costs of the proposed regulation may result in the equivalent of a loss of approximately 6,600 to 22,000 jobs due to business productivity losses and worker absences. On the other hand, the direct benefits may result in the equivalent of a gain of approximately 6,100 to 23,000 jobs due to new capital expenditures and avoided business productivity losses and worker absences. Therefore, the estimated magnitude of the impact to jobs ranges from a loss of approximately 500 jobs to a gain of approximately 690 jobs in the first 12 months of the proposed regulation. In 2024, the estimated employment impacts range from a loss of approximately 250 to 500 jobs to a gain of approximately 340 to 680 jobs.

The creation of new businesses or the elimination of existing businesses in the state.

DIR does not anticipate the elimination of any existing businesses in California as a result of the proposed regulation. In contrast, reductions in COVID-19 transmission rates may reduce the number of infections, outbreaks, and temporary business closures due to employee illnesses. Furthermore, increases in business productivity and labor income due to avoided employee illnesses (and worker absences) may result in an increase in demand for suppliers of products and services to these industries.

The expansion of businesses currently doing business in the state.

The proposed regulation is unlikely to have a significant impact on the expansion of businesses currently operating in California. The estimated costs of the proposed regulation are relatively small on a per establishment basis; however, the additional requirements add to the costs of doing business in California. It is assumed that other reasons for doing business in California likely outweigh the costs associated with the proposed regulation. Furthermore, the proposed regulation will be unlikely to significantly impact the ability of California businesses to compete with businesses in other states, as COVID-19 poses a similar risk of illness to workers regardless of geographical location.

The competitive advantages or disadvantages for businesses currently doing business in the state.

The proposed regulation is unlikely to have a significant impact on competitive advantages or disadvantages for businesses operating in California. A recent study found that California was one of the safest states for COVID-19.²⁶ California has one of the highest vaccination rates in the country—more than 75 percent of the population aged 5 and up is fully vaccinated and another 8.9 percent of the population is partially vaccinated.²⁷ While the additional testing

²⁶ McCann, Adam, "Safest States During COVID-19," WalletHub, April 21, 2022, accessed at https://wallethub.com/edu/safest-states-during-covid/86567 on May 12, 2022.

²⁷ California for All, Vaccination data, accessed at https://covid19.ca.gov/vaccination-progress-data/ on April 22, 2022.

requirements and performance standards will add to the cost of doing business in California, the average cost to most businesses is relatively small and the anticipated reduction in workplace COVID-19 cases and outbreaks will likely more than offset this burden.

The increase or decrease of investment in the state.

California businesses have already undertaken a number of preventative measures due to existing public health orders or as a conditioning of re-opening during the pandemic. The proposed regulation is likely to increase investment in ventilation systems by some businesses; however, these expenditures are likely to be relatively insignificant in comparison to the overall size of the California economy. The majority of indoor establishments in California have heating, ventilation, and air conditioning (HVAC) systems and would only need to upgrade to MERV-13 or higher rated filters. The proposed regulation will expire in two years, so it is unlikely to have a long-term impact on investment in the state; however, it is anticipated that a proposed regulation with the effect of reducing COVID-19 cases in California might increase investment in the short term, because this would make California a more reliable place to do business.

The incentives for innovation in products, materials, or processes.

The proposed regulation provides an incentive for employers to prevent or significantly reduce COVID-19 infections due to the costly requirements for testing, exclusion of COVID-19 cases, and monitoring close contacts. This incentive to avoid more costly regulatory requirements is in addition to pre-existing incentives to mitigate COVID-19 hazards in the workplace to reduce the risk of COVID-19 transmission and employee absences that result in lost productivity, staffing shortages, and other disruptions.

Although many businesses already have preventative measures in place due to existing public health orders and local regulations, the proposed regulation will likely increase the demand for higher-rated filtration for air-conditioning and ventilation systems, such as MERV-13 and portable air filtration systems. Increased use of higher rated filtration system can promote competition and innovation in this sector. Some manufacturers could have incentives to invest in new technologies to improve their productivity and obtain a larger market share. In addition, the proposed regulation could increase the demand for respirators and other response to COVID-19 to reduce workplace contacts, such as automation of certain processes. As a result, there could be incentives for innovation in new respirator technology and other related industries.

BENEFITS OF THE PROPOSED ACTION

The benefits of the regulation, including, but not limited to, benefits to the health, safety, and welfare of California residents, worker safety, environment and quality of life, and any other benefits identified by the agency.

Direct benefits to businesses and workers from regulations that prevent workplace transmission of COVID-19 accrue from multiple aspects of the proposed regulation, although all benefits attributed to the proposed regulation trace back to avoided COVID-19 illnesses. The value of avoided COVID-19 cases come from two primary sources: avoided productivity losses for employers, and avoided wage, health, and broader utility losses for workers.

The value of avoided COVID-19 cases depends on the severity of the case. The Board assumes 35.1 percent of cases are asymptomatic. The distribution of severity of symptomatic cases is based largely on the counts of hospitalizations and deaths. The Board conservatively assumes that 35.1 percent of reported cases are asymptomatic, although many asymptomatic cases are likely to go unreported. Cases that are not asymptomatic and do not result in hospitalization or death are assumed to be mild. Hospitalizations are assumed to be either severe or critical. Based on the CDC analysis (Taylor et al, 2021), the Board assumes 20 percent of hospitalizations result in an ICU admission and are therefore classified as critical, with the remaining 80 percent being classified as severe.²⁸

Assessing and determining the benefits of the proposed regulation, expressed in monetary terms to the extent feasible and appropriate.

Estimates of workers' valuation of avoided COVID-19 cases are based on a willingness to pay (WTP) estimates developed by Robinson et al (2021).²⁹ These values are developed by first comparing health-related quality of life (HRQL) estimates with and without COVID-19, then multiplying the difference in HRQL by the expected illness duration to estimate the total change in quality-adjusted life years (QALY), then monetizing those changes in QALY based on values provided by the U.S. Department of Health and Human Services. Robinson et al (2021) provide different values based on age (20, 40 and 70) and future discount rate (three percent and seven percent). The calculation of benefits in this Standard Regulatory Impact Assessment (SRIA) does not incorporate worker age, and thus assumes the WTP estimates for age 40 best represent the value for an average worker.³⁰ The calculations of benefits in this SRIA as based on three percent discount rates; using seven percent discount rates instead does not meaningfully

²⁸ Severity of Disease Among Adults Hospitalized with Laboratory-Confirmed COVID-19 Before and During the Period of SARS-CoV-2 B.1.617.2 (Delta) Predominance — COVID-NET, 14 States, January–August 2021 | MMWR (cdc.gov), https://www.cdc.gov/mmwr/volumes/70/wr/mm7043e1.htm#T1 down (accessed April 28, 2022).
²⁹ United States Department of Health and Human Services (HHS). Valuing COVID-19 Mortality and Morbidity Risk

²⁹ United States Department of Health and Human Services (HHS). Valuing COVID-19 Mortality and Morbidity Risk Reductions (hhs.gov), https://aspe.hhs.gov/sites/default/files/2021-08/valuing-covid-risks-july-2021.pdf (accessed April 28, 2022).

³⁰ Bureau of Labor Statistics (BLS). Median age of the labor force, by sex, race, and ethnicity, https://www.bls.gov/emp/tables/median-age-labor-force.htm (accessed April 28, 2022).

change the results because the values for the highest-cost cases (critical cases and fatal cases) do not change between three percent and seven percent discount rates.

In addition to these WTP estimates, avoided asymptomatic cases also have benefit for employers through reduced productivity losses, for other workers through reduced transmission, and for the employee themselves through reduced wage loss. DIR assumes the WTP estimates in Robinson et al (2021) are presumed to include the average value of lost wages, and that 25 percent of employees would experience lost wages.

Avoided productivity losses requires estimating changes in the number of excluded workers due to the regulation. The exclusion period is not a new requirement of the proposed regulation, and symptomatic workers may be unwilling or unable to return to work regardless. The Board attributes 14 percent of the COVID-19 exclusions to the proposed regulation. Thus, the Board attributes 78,573 exclusions to the proposed regulation in the primary estimate, and 314,290 exclusions to the proposed regulation in the high-end estimate. Estimates of benefits focus on changes relative to these values.

Employees who are unable to work due to illness also represent lost productivity to employers. The benefits of avoiding COVID-19 cases thereby provide two benefits to employers. First, the avoided case averts productivity losses for that employee. Second, the risk of other employees falling ill is reduced, as discussed in the section on testing of close contacts. Both issues are covered in discussions of the direct benefits of the proposed regulation.

Estimating the productivity benefits associated with avoided illness requires assumptions about the extent to which the different severities of illness are associated with absence from work. Macroeconomic impacts require these absences to be distributed by NAICS code. DIR assumes asymptomatic cases are associated with five days of work absence, because asymptomatic employees with positive test results must be excluded for five days from the date the sample was taken.

The Bureau of Labor Statistics' Survey of Occupational Injuries and Illnesses (SOII) reported that in 2020, the median days away from work due to "Other diseases due to viruses, not elsewhere classified" was 12 to 14 days, depending on industry sector. The Board assumes that mild cases of COVID-19 involved fewer lost workdays, while severe and critical cases involved a larger number of lost workdays. The Board developed specific assumptions for each severity based on the illustrative description of symptoms associated with each severity category in Robinson et al (2021). Mild cases were assumed to experience eight workdays of absence,

³¹ BLS. How COVID-19 is reflected in the SOII data, https://www.bls.gov/iif/how-covid-19-is-reflected-in-the-soii-data.htm (as of April 29, 2022)

³² Menni, Christina, et al. Symptom prevalence, duration, and risk of hospital admission in individuals infected with SARS-CoV-2 during periods of omicron and delta variant dominance: a prospective observational study from the

based on an assumption of 10 days of mild symptoms. Severe cases were assumed to experience 20 workdays of absence, based on an assumption of 13 days lost in the near term, followed by one lost day per week over the next 50 days. For reference, the median length of hospital stays for COVID-19 was six days (Ohsfeldt et al., 2021).³³ Critical cases were presumed to experience 45 days of absence, based on an assumption of 13 days lost in the near term, followed by one lost day per week over the next six months, based on the assumption that not all workers become ill at the start of the year. Fatalities are assumed to be replaced with a new worker, potentially drawn from the pool of unemployed workers. It is difficult to know how quickly workers will be replaced; many California industries, such as agriculture, health, and restaurants, have high rates of turnover. We conservatively do not include the small number of fatalities, biasing our estimates of benefits downward.

The productivity losses associated with severe cases is particularly uncertain, making the productivity benefits correspondingly uncertain. These more severe cases are less common, and DIR assumes the distribution of severity is identical across NAICS codes. The lost workdays are monetized by using the fully-loaded hourly labor cost of \$47.64 for California workers.

Other Benefits

Several specific provisions of the proposed regulations are predicted to yield benefits, as discussed in greater detail below.

Subsection 3205(d) requires testing of close contacts. DIR assumes each case among covered workers has 4.5 close contacts, for a total of 2,518,352 close contacts in the primary estimate. Of these close contacts, DIR assumes that seven percent will become infected with COVID-19. Miao and Zhang (2022) found "the infection risk (one-hour close contact with an infected person) of COVID-19 of students, workers, and non-workers/non-students was 3.1%, 8.7%, and 13.6%, respectively."³⁴ However, this study is based in China rather than the United States. Nowotny et al (2021) conducted a study of infections in U.S. prisons relative to the general population, and found that "The rolling 7-day average case rates for prison staff, prison population, and general population on January 15, 2021 were 196.04 per 1000 (95%CI 194.81, 197.26), 219.16 (95%CI 218.45, 219.86), and 69.80 (95%CI 69.78, 69.83), respectively."³⁵ Based

ZOE COVID Study, available at https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(22)00327-0/fulltext (accessed April 29, 2022).

³³ Ohsfeldt, Robert L., et al. Inpatient hospital costs for COVID-19 patients in the United States. Advances in therapy 38.11 (2021): 5557-5595. October 5, 2021. . https://link.springer.com/content/pdf/10.1007/s12325-021-01887-4.pdf

³⁴ Miao D, Zhang N. Human Close Contact Behavior-Based Interventions for COVID-19 Transmission. Buildings. March 16, 2022; 12(3):365. https://www.mdpi.com/2075-5309/12/3/365 (accessed April 28, 2022).

³⁵ Nowotny, K.M., Seide, K. & Brinkley-Rubinstein, L. Risk of COVID-19 infection among prison staff in the United States. BMC Public Health 21, 1036 (2021). https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-021-11077-0 (accessed April 28, 2022).

on these studies, DIR assumes that, on average, seven percent of close contacts lead to infections at the community level.

DIR assumes that of those infected with COVID-19, 35.1 percent will be asymptomatic. DIR further assumes that without the requirement to test close contacts, these asymptomatic cases would return to the workplace, and would each have 4.5 close contacts among covered employees during their infectious period, of whom seven percent will become infected in turn. DIR conservatively does not calculate the further infections associated with these secondary infections, given the speculative nature of the rate of spread and the prevalence of businesses with a small number of employees. This results in an additional 19,491 cases, in the primary estimate, that DIR assumes would not have occurred under the proposed regulation.

Under the assumptions about the distribution of severity and the associated costs, this section of the proposed regulation avoids approximately \$59 million in productivity losses and approximately \$6.8 million in lost wages under the primary estimate, and approximately \$236 million in productivity losses and \$59 million in lost wages under the high-end estimate. This section of the proposed regulation also avoids approximately \$1.9 billion in WTP losses under the primary estimate, or approximately \$7.5 billion under the high-end estimate.

Subsection 3205(c)(5)(A) requires excluding positive cases to prevent initial close contacts from becoming ill in the first place. DIR attributes two days of exclusion of asymptomatic cases from the workplace to the proposed regulation. DIR assumes infections among the 4.5 close contacts of these 196,431 asymptomatic carriers would be prevented under the exclusion and protective measures of the proposed regulation. Under the assumption that seven percent of close contacts contract COVID-19, this corresponds to 61,876 avoided cases.

Under the assumptions about the distribution of severity and the associated costs, this section of the proposed regulation avoids approximately \$187 million in productivity losses and approximately \$47 million in lost wages under the primary estimate, and approximately \$749 million in productivity losses and \$187 million in lost wages under the high-end estimate. This section of the proposed regulation also avoids approximately \$6.2 billion in WTP losses under the primary estimate, or approximately \$24.9 billion under the high-end estimate.

Subsection 3205(c)(5)(B) requires employers to develop, implement, and maintain effective policies to prevent transmission of COVID-19 by persons who had close contacts. Employees who tested positive after close contact with an infected individual would be required to follow exclusion and other protective requirements in subsection 3205(c)(5)(A); these benefits are already accounted for under exclusion of and protective measures for COVID-19 cases. This section considers the benefits associated with the provision of face coverings for close contacts in non-high-risk settings for a total of 10 days. DIR assumes each initial COVID-19 case has 4.5 close contacts, and seven percent of initial close contacts become infected with COVID-19, each of which has 4.5 second-order close contacts, of whom seven percent become infected with

COVID-19. The filtration efficiency of masks varies widely depending on design and materials.^{36, 37} Twill fabrics can have filtration efficiencies of 20 to 40 percent, while masks that use N95 base fabric can have filtration efficiencies of 90 percent or more depending on particle mobility diameter. The proposed regulation does not require surgical masks or high-filtration fabrics, and workers are likely to make use of different mask types depending on availability and preferences. Given the high variability in the effectiveness of face coverings, DIR assumes that the face covering requirement for close contacts in the proposed regulation reduces infections among second-order close contacts by 45 percent. As a result, DIR attributes 5,309 avoided COVID-19 cases among second-order close contacts to the proposed regulation.

Under the assumptions about the distribution of severity and the associated costs, this section of the proposed regulation avoids approximately \$16 million in productivity losses and approximately \$4 million in lost wages under the primary estimate, and approximately \$64 million in productivity losses and \$16 million in lost wages under the high-end estimate. This section of the proposed regulation also avoids approximately \$514 million in WTP losses under the primary estimate, or approximately \$2.1 billion under the high-end estimate.

Further, subsection 3205(c)(5)(B) requires employers to review CDPH guidance for persons who had close contacts and develop effective policies to prevent transmission of COVID-19 by persons who have had close contacts. In high-risk settings, as of this writing, CDPH recommends that persons who have had close contacts be excluded for five days and comply with CDPH masking guidance. DIR assumes that asymptomatic cases among covered high-risk workers would each have 4.5 close contacts, for a total 110,676 close contacts in high-risk settings in the primary estimate. Of these, DIR assumes that seven percent would be COVID-19 positive and 35.1 percent of those would have been asymptomatic and hence may have returned to the office while contagious. Because section 3203 already requires employers to manage such risks in high-risk settings, DIR only attributes 40 percent of these benefits to the proposed regulation. As a result, DIR attributes 343 avoided cases amongst high-risk workers to this exclusion requirement.

Under the assumptions about the distribution of severity and the associated costs, this section of the proposed regulation avoids approximately \$1 million in productivity losses and approximately \$0.26 million in lost wages under the primary estimate, and approximately \$4 million in productivity losses and \$1 million in lost wages under the high-end estimate. This section of the proposed regulation also avoids approximately \$33 million in WTP losses under the primary estimate, or approximately \$133 million under the high-end estimate.

³⁶ Zangmeister, Christopher D., et al. Filtration efficiencies of nanoscale aerosol by cloth mask materials used to slow the spread of SARS-CoV-2. ACS nano 14.7 (2020): 9188-9200. https://pubs.acs.org/doi/pdf/10.1021/acsnano.0c05025

³⁷ Konda, A., Prakash, A., Moss, G.A., Schmoldt, M., Grant, G.D., Guha, S., 2020. Aerosol Filtration Efficiency of Common Fabrics Used in Respiratory Cloth Masks. ACS Nano 14, 6339–6347. https://doi.org/10.1021/acsnano.0c03252

Subsection 3205(g) requires employers to provide respirators to employees that request them. DIR assumes that five percent of employees will request respirators from their employers during local upswings in cases, and that these employees would be wearing masks in the no regulatory action baseline. Respirators have been measured to block 30 to 60 percent more respiratory aerosols than masks (Konda et al., 2020). DIR assumes that the provision of respirators reduces the annual transmission rate of employees who use them (.045 percent in the primary estimate and 0.180 percent in the high-end estimate) by 50 percent. As a result, DIR calculates that subsection 3205(g) of the proposed regulation will avoid 13,991 cases in the primary estimate.

Under the assumptions about the distribution of severity and the associated costs, this section of the proposed regulation avoids approximately \$42 million in productivity losses and approximately \$10 million in lost wages under the primary estimate, and approximately \$169 million in productivity losses and \$42 million in lost wages under the high-end estimate. This section of the proposed regulation also avoids approximately \$1.4 billion in WTP losses under the primary estimate, or approximately \$5.4 billion under the high-end estimate.

Making the estimation described in Government Code Section 11342.548.

The proposed COVID-19 Prevention regulations would be fully implemented in 2023 and are estimated to result in an annual economic impact exceeding \$50 million starting in 2023. Most provisions of the proposed regulation would be in effect for two years; recordkeeping provisions would be in effect for three years. Cal/OSHA staff has estimated that the proposed regulation could result in direct costs to regulated entities totaling \$0.5 billion to \$1.6 billion in 2023 and \$0.2 billion to \$1.5 billion 2024. The estimated direct benefits range from \$6.0 billion to \$41.2 billion year.

Department of Finance (DOF) Comments on SRIA and DIR Responses.

There were four concerns raised in DOF's comments on the SRIA.

1. Two parts:

a. The SRIA must clearly report quantitative estimates of all fiscal impacts, including enforcement costs, and report state and local government impacts separately. The SRIA explains qualitatively that the Department of Industrial Relations may realize a cost savings in enforcement from reduced enforcement activity due to reduced transmission of COVID-19, but does not provide the required quantitative estimate.

Upon further analysis, the Division does not expect to realize a cost savings from reduced enforcement if COVID-19 transmission levels are reduced by these proposed regulations. Rather, to the extent that COVID-19 rates are decreased, either by this proposal or by other factors, the Division will simply return staff to pre-pandemic activities.

Additionally, the Division expects that certain enforcement activities will return to normal. The Division has statutory deadlines to respond to complaints in certain circumstances. (Labor Code section 6309.) From the start of the pandemic, the Division received very high levels of complaints. For example, in 2021, the Division received more than 5,200 complaints that were coded for COVID-19-related issues; the actual number is likely higher, since it is possible that some COVID-related complaints were not coded properly. To deal with this influx, the Division took a number of measures to use its limited resources most effectively. Among these measures was an increased use of letter investigations starting in 2020. In a letter investigation, the Division sends a written query to an employer requesting information. A satisfactory response will conclude the matter; an unsatisfactory response, or no response, will cause the Division to open an inspection. The Division conducted more than 4,400 letter investigations in 2021, the great majority of which were closed after a satisfactory employer response. If COVID-19 transmission rates decrease, the Division expects to conduct a greater proportion of its enforcement activity as onsite inspections, in keeping with pre-pandemic practice. Inspections, of course, are much more time-consuming than letter investigations.

Thus, reduced COVID-19 transmission rates will allow the Division to return to pre-pandemic activities rather than reduce enforcement costs.

b. Additionally, the SRIA should discuss any expected impacts on penalties raised if the specificity provided by the proposed regulation is expected to provide sufficient guidance to employers to reduce citable violations.

The Division has determined that it cannot reliably quantify a prediction of the degree to which the proposal will affect penalties collected from employers for COVID-19 violations. It is possible that the improved specificity of the proposed regulations will make it easier for employers to comply, as compared with addressing COVID-19 hazards through the existing section 3203 and other regulations. If so, the overall number of citable hazards in California would decrease. It is unknown whether that would affect the total amount of penalties collected, however. The penalty for any particular violation depends on a complex variety of fact-specific factors set forth in regulation, CCR, title 8, sections 334-336, which must be applied on a case-by-case basis. A violation of the identical regulatory section or subsection will result in an entirely different penalty, depending on surrounding facts which cannot be estimated in advance.

2. The SRIA does not attribute the workplace exclusion of symptomatic employees (which comprise 65 percent of COVID-19 cases) to the proposed regulation. However, if any employers begin excluding symptomatic employees in response to the specificity provided by the proposed regulation, the impacts of that exclusion must also be quantified.

Based on Cal/OSHA's experience conducting investigations during the pandemic, DIR assumed that the vast majority of employers are already excluding symptomatic COVID-19 cases from the workplace and would do so without regard to the proposed regulation. Furthermore, due to

the existing requirements in section 3203, employers are already required to have in place "procedures for correcting unsafe or unhealthy conditions...in a timely manner based on the severity of the hazard." (CCR title 8, subsection 3203(a)(6).) Therefore, DIR assessed that it was not reasonable to attribute the entirety of the costs or benefits of this requirement to the proposed regulation. If employers were not excluding symptomatic COVID-19 cases for the full duration of the exclusion period, as already required under section 3203, then there would be a greater number of COVID-19 cases in the baseline as sick employees would likely be exposing and infecting others. If this were the case, based on the assumptions reported in the SRIA, the benefits of elevating all employers to full compliance under the proposed regulation would outweigh the costs of doing so.

For example, if the SRIA were to assume that the additional specificity in the proposed regulation contributed to employers excluding all asymptomatic COVID-19 cases and all symptomatic COVID-19 cases that might otherwise return to work, both the costs and the benefits would be higher. DIR already conservatively assumed that a portion of days of the required exclusion period for all asymptomatic cases would be attributable to the proposed regulation. As a proxy for the number of symptomatic COVID-19 cases that might otherwise return to work, one could use the percentage of COVID-19 cases without fever that do not result in hospitalization or death. While this may still overstate the number of employees that might return to work before the end of the exclusion period as other symptoms may be as or more debilitating, it is a useful proxy because fever has been an employer condition for workplace exclusion long before the pandemic. In other words, employers' policies usually prevent feverish employees from coming to a shared workplace, regardless of whether the employee has COVID-19, flu, another virus, or a severe infection. Furthermore, many employers were recording employees' temperatures from the outset of the pandemic, even before the enactment of the emergency versions of section 3205 et seq. The UK ZOE COVID Study, which uses an app that collects self-reported information related to SARS-CoV-2, estimates the percentage of COVID-19 cases that have any of 32 given symptoms³⁸. A study published in April 2022 found that approximately 40 percent of COVID-19 cases reported symptoms including fever when Delta was the predominant strain and slightly less under Omicron (80 percent to 94 percent of the rate relative to Delta). 39 The SRIA assumed 35.1 percent of COVID-19 cases were asymptomatic, 58.2 percent were mild, 6.1 percent required hospitalization, and 0.6 percent resulted in death.

³⁸ General information about the ZOE COVID Study app is available at: https://joinzoe.com/learn/omicron-symptoms

³⁹ Cristina Menni, *et al.*, Symptom prevalence, duration, and risk of hospital admission in individuals infected with SARS-CoV-2 during periods of omicron and delta variant dominance: a prospective observational study from the ZOE COVID Study, the Lancet, 2022; 399: 1618–24, April 7, 2022. https://www.thelancet.com/action/showPdf?pii=S0140-6736%2822%2900327-0

To calculate a maximum upper bound, assuming that 60 percent of mild cases did not involve fever, a portion of the exclusion period for approximately 70 percent of all COVID-19 cases may be attributable to the proposed regulation. In this extreme case, the estimated costs would increase by approximately 35 percent to 45 percent and the estimated benefits attributable to the proposed regulation would increase by approximately 80 percent relative to the estimates in the SRIA. This is not expected because the exclusion requirement does not represent a policy change relative to the baseline—it is an existing requirement in section 3203. It is highly unlikely that the additional specificity in the proposed regulation would affect behavioral changes in how employers are handling 70 percent of all COVID-19 cases. In addition to hospitalizations, a wide range of COVID-19 symptoms beyond a fever, or simply a positive COVID-19 test result, may leave employees unable to return to work before the end of the exclusion period—thus, there would be little change relative to the baseline.

3. The SRIA uses disease data from 2021, when the Alpha and Delta strains were dominant, as the basis for assumptions including transmission rate and case severity. More recent data indicate that the Omicron variant is less lethal and vaccination rates are higher than in 2021, implying that benefits may be about half the estimated amount.

DIR acknowledges there is considerable uncertainty regarding future projections of COVID-19 transmission rates. In the SRIA, DIR relies on COVID-19 case projections from the CDPH for 2023 that are based on the COVID-19 Scenario Modeling Hub. These projections were provided to DIR on April 8, 2022 and incorporate data through as late as March 2022—therefore, baseline projections of transmission and case severity include the period when the Omicron strain was dominant. Specifically, DIR's assumptions about the distribution of severity of disease come directly from CDPH's estimates of the number of hospitalizations and deaths as a percentage of total cases. The transmission rate and case severity of future waves is uncertain.

DIR's review of the public health literature included peer-reviewed studies that were published when the Alpha and Delta strains were dominant; however, DIR relied on the most recent available information to inform key assumptions in the SRIA.

Following DOF's comments, DIR's subsequent review noted additional studies, some of which were released after DIR completed the SRIA, with different estimates. Since this information was not available at the time to inform DIR's decision-making, and the estimates would not change the direction of the net benefits (i.e., from positive to negative), DIR plans to continue to rely on the primary estimates in the SRIA.

For transmission, DIR based its estimates regarding close contacts on a 2021 U.S. study that found approximately seven percent of close contacts with a COVID-19 case would lead to new

 $^{^{40}}$ This is calculated as 35.1% asymptomatic cases + (1-40%) × 58.2% mild cases = 70.0% of all COVID-19 cases.

infections at the community level.⁴¹ Subsequent to making our calculations, DIR identified a U.K. study published in February 2022 capturing early cases of the Omicron strain that suggests this assumption remains a reasonable one.⁴²

Weighted prevalence in round 16 (November 23 to December 14, 2021) was highest... in those having been in contact with a confirmed COVID-19 case at 8.00% (7.25%, 8.82%) compared to 0.81% (0.73%, 0.89%) for those without such contact.

While a study of Omicron cases in Denmark published in January 2022 found the effective reproduction number of Omicron was 3.19 times greater than that of Delta under the same epidemiological conditions, it is not straightforward to convert the increase to the number of new infections, because community immunity levels have also changed.⁴³ If the transmission rate were higher, as suggested, it would increase the benefits of the proposed regulation and lower the costs of excluding close contacts since more employees would test positive for COVID-19 in the baseline, while at the same time potentially increasing the number and cost of outbreaks. Evidence suggests that the Omicron variant is less lethal, and this is already reflected in DIR's assumptions about the distribution of severity of cases with regard to hospitalizations and fatalities.

Among hospitalizations, DIR relied on data from January to August 2021 published by the CDC to estimate the distribution of severe and critical (i.e., requiring an ICU admission) cases. DIR assumed approximately 20 percent of hospitalizations would require an ICU admission.⁴⁴ Subsequent to performing the analysis included in the SRIA, DIR found more recent estimates from November 22 to December 24, 2021 during the emergence of Omicron in Ontario, Canada. This study was published in early April 2022 and suggests the risk of hospitalization or death was lower for Omicron cases compared with Delta cases.⁴⁵ This study suggests that approximately half as many hospitalizations for Omicron cases would require an ICU admission. Based on this information, if the SRIA assumed that 10 percent, versus 20 percent, of

Severity in Ontario, Canada. JAMA, 327(13), 1286-1288, April 5, 2022.

⁴¹ Nowotny, Kathryn M., Kapriske Seide, and Lauren Brinkley-Rubinstein, Risk of COVID-19 infection among prison staff in the United States, BMC Public Health 21, 1036, 2021.

⁴² P. Elliott, *et al.*, Rapid increase in Omicron infections in England during December 2021: REACT-1 study, Science, February 8, 2022.

⁴³ Ito, K., Piantham, C., & Nishiura, H. (2022). Relative instantaneous reproduction number of Omicron SARS-CoV-2 variant with respect to the Delta variant in Denmark. Journal of Medical Virology, 94(5), 2265–2268, January 11, 2022.

⁴⁴ Taylor, Christopher A., et al., Severity of Disease Among Adults Hospitalized with Laboratory-Confirmed COVID-19 Before and During the Period of SARS-CoV-2 B.1.617.2 (Delta) Predominance — COVID-NET, 14 States, January–August 2021 | MMWR (cdc.gov), https://www.cdc.gov/mmwr/volumes/70/wr/mm7043e1.htm#T1 down
⁴⁵ Ulloa, A. C., Buchan, S. A., Daneman, N., & Brown, K. A. (2022). Estimates of SARS-CoV-2 Omicron Variant

hospitalizations would require an ICU admission, it would reduce the overall level of benefits estimated by approximately 11 percent.

In response to DOF's letter, DIR reviewed assumptions about the proportion of COVID-19 cases that remained asymptomatic. Based on a meta-analysis that included studies conducted from January 1, 2020 to April 2, 2021, DIR assumed 35.1 percent of COVID-19 cases were asymptomatic.⁴⁶ Two other meta-analyses have estimated the asymptomatic rate to be 40.5 percent and 44.1 percent, respectively.^{47,48} The latter study was released after DIR's SRIA was published. None of the meta-analyses included studies after the emergence of the Omicron variant. A UK study—published in May 2022 after DIR's SRIA was completed—suggests that the BA.2 variant is more likely to produce symptomatic infection.⁴⁹

The proportion of swab positive individuals reporting any of 26 symptoms was highest in those infected with BA.2 (75.9%, compared with 70% in those with BA.1, 63.8% in those with Delta, 54.7% in those with Alpha, and 45% in those with wild-type). Background prevalence of symptoms was also highest during January-March 2022, when Omicron dominated: 21.9% of all respondents reported one or more symptoms, compared with 13.5% during the wild-type period.

This information about the proportion of COVID-19 cases that are asymptomatic was not available at the time the SRIA was being prepared and therefore could not be considered in the economic analysis. While the data suggest the BA.2 variant is less likely to produce an asymptomatic response relative to other strains, it is unknown whether future variants will be more or less severe or will be more likely or less likely to result in asymptomatic COVID-19 cases.

4. The SRIA does not clearly disclose how inflation is incorporated into the analysis, although the costs of acquiring materials such as filters for ventilation systems may be different under higher assumed inflation rates, particularly since some costs are based on old data (such as the MERV-13 filter costs based on a 2017 report). The estimates must incorporate the most recent inflation projections at the time of the analysis.

For direct comparison in the SRIA, all costs and benefits are reported in 2021 dollars (p.20, p.63). The estimated unit costs for specific preventative measures generally reflect prices as of the time of the research and writing of the SRIA, such as the cost of acquiring N95 respirators

⁴⁶ Sah, Pratha, et al., Asymptomatic SARS-CoV-2 infection: A systematic review and meta-analysis, Proceedings of the National Academy of Sciences of the United States of America, August 24, 2021.

⁴⁷ Ma Q, Liu J, Liu Q, Kang L, Liu R, Jing W, *et al.*, Global Percentage of Asymptomatic SARS-CoV-2 Infections Among the Tested Population and Individuals With Confirmed COVID-19 Diagnosis: A Systematic Review and Meta-analysis, JAMA network open, 2021;4(12).

⁴⁸ Bing Wang, *et al.*, Asymptomatic SARS-CoV-2 infection by age: A systematic review and meta-analysis, medRxiv, May 5, 2022.

⁴⁹ Matthew Whitaker, et al., Variant-specific symptoms of COVID-19 among 1,542,510 people in England, medRxiv, May 23, 2022.

(based on vendor prices as of October/November 2021, p.32) and the cost of purchasing commercial HEPA units (based on listed vendor prices as of November 2021, p.41), and are converted into 2021 dollars, if necessary. DOF appropriately notes that unit cost estimates for MERV-13 filters were based on a 2017 report. However, to clarify, DIR specifically relied on estimates of the incremental cost (or cost differential) of MERV-13 versus MERV-8 filters, as some employers with older HVAC systems would be required to replace their existing filters with MERV-13 or higher-rated filters. DIR estimated the cost differential to be approximately \$0.03/square foot when replacing MERV-8 filters with MERV-13 filters (instead of replacing them with new MERV-8 filters). As the same manufacturers produce both MERV-8 and MERV-13 filters, it is likely both products are subject to the same inflationary factors; thus, the price ratio of the two products would not necessarily diverge at the rate of inflation in the overall economy. DIR assumed the cost differential would remain constant over time.

DOF's Consumer Price Index Forecast estimates that California prices rose approximately 13.2 percent between 2017 and 2021.⁵⁰ If the SRIA assumed that the price of MERV-13 filters rose at this rate relative to the price of MERV-8 filters, it would increase the estimated costs of "managing outbreaks" by approximately 0.5 percent and the estimated costs of "COVID-19 prevention in employer-provided housing" by approximately 2.6 percent. This would increase the overall cost estimates in the SRIA by \$0.2 to \$0.4 million, or less than 0.1 percent overall.

DIR appreciates the opportunity to further elaborate on the assumptions and methods used in the SRIA.

Business Reporting Requirement:

It is necessary for the health, safety, or welfare of the people of the state that the regulation which requires a report apply to businesses.

CONSIDERATION OF ALTERNATIVES

In accordance with Government Code section 11346.5(a)(13), the Board must determine that no reasonable alternative it considered to the regulation or that has otherwise been identified and brought to its attention would either be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provision of law than the proposal described in this Notice.

⁵⁰ California Department of Finance (DOF), Economic Forecasts, U.S. and California, prepared by the Economic Research Unit in April 2022, accessed at https://dof.ca.gov/forecasting/economics/economic-forecasts-u-s-and-california/ on June 3, 2022.

The Board invites interested persons to present statements or arguments with respect to alternatives to the proposed regulation at the scheduled public hearing or during the written comment period.

The Board considered and rejected two alternatives.

Alternative #1 would require employers to comply with all CDPH orders regarding COVID-19. Employers are already legally bound to follow mandatory CDPH orders, but Alternative 1 would allow the Division to enforce those orders in the occupational context, during site inspections. Currently, however, while there are many guidance documents that set forth recommendations from CDPH, there are relatively few mandatory orders. Specifically, CDPH has issued State Public Health Officer Orders regarding vaccination requirements for healthcare workers, including in state and local correctional facilities and detention centers; vaccination requirements for workers in schools; requirements for visitors in acute healthcare and long-term care settings; reporting of COVID-19 results by healthcare providers; and face covering requirements in emergency shelters, cooling and heating centers, homeless shelters, long-term care settings, adult and senior care facilities. Alternative #1 would give the Division additional enforcement authority by making the Division an enforcement arm for CDPH orders.

The total costs and benefits for Alternative #1 are unquantifiable because Alternative #1 does not change employers' legal obligations to comply with existing CDPH orders. However, Alternative #1 is not identical to a *no regulatory action* baseline, despite economic and fiscal similarities. Without a regulation specifically allowing the Division to enforce CDPH orders, the Division could not issue citations against employers for violating those orders. This would not change employers' legal obligations—and thus would not have an economic effect relative to existing law—but as a practical matter, this alternative would likely improve compliance, particularly in areas of the state in which local public health authorities initiated fewer enforcement actions of their own.

DIR rejected Alternative #1 because it was insufficiently protective of worker safety and health. The Division works closely with CDPH and uses CDPH guidelines in the development of regulations. Further, the Division's regulations can be written to reference changing public health orders and regulations; indeed, the proposed regulation incorporates current CDPH guidance on Isolation and Quarantine, and also defers to CDPH regulations or orders if the timelines change. However, as discussed above, despite the extensive library of CDPH guidance and recommendations, there are relatively few formal, mandatory CDPH orders that the Division could enforce; CDPH recommendations are generally directed to the public and do not always address occupational hazards. It is, of course, possible that CDPH could issue formal mandatory orders in the future that would be enforceable by the Division. But a regulation cannot rely on speculative future orders from a sibling agency. The Division does not have the authority to issue a citation for failure to follow a CDPH requirement; instead, the Division must rely on the general obligation of section 3203. The IIPP regulation does not provide sufficient

detail to employers and employees regarding the particular context of COVID-19, which reduces employer compliance.

Alternative #2 would require employers with 100 or more employees to develop, implement, and enforce a mandatory COVID-19 vaccination policy, with an exception for employers that instead adopt a policy requiring employees to either get vaccinated or elect to undergo regular COVID-19 testing and wear a face covering at work in lieu of vaccination. Alternative #2 is similar to the ETS proposed by Federal OSHA, which was eventually blocked by the United States Supreme Court. After the Supreme Court's ruling, Federal OSHA then withdrew the vaccination and testing ETS as an enforceable emergency temporary standard. Despite this, multiple Standards Board members have urged the Division to adopt vaccinate or test requirements that would apply to California's workplaces, and a recent bill (AB 1993) was submitted mirroring these requirements.

For Alternative #2, DIR's cost methodology is based on OSHA's feasibility study and analytic spreadsheets in support of the COVID-19 vaccination and testing ETS.⁵¹ DIR's benefits methodology follows the same approach as the proposed regulation and relies on peer-reviewed studies of vaccine effectiveness to quantify the potential number of avoided COVID-19 illnesses, hospitalizations, and fatalities. Those avoided COVID-19 cases are monetized using the same basis as for the proposed regulation.

DIR rejected Alternative #2 for several reasons. First, it would cost significantly more per entity than the proposed regulation, with new costs associated with documentation of vaccination status as well as enforcement of testing and face covering by both employers and the Division, through citations and investigations. Overall, it would cost nearly as much as the proposed regulation and yield a considerably lower level of benefits. Further, potentially large (but unquantifiable) costs would have been incurred in connection with severance from the workforce; employers were already concerned that employees would quit rather than get vaccinated. Second, California already enjoys a relatively high rate of vaccination: as of April 22, 2022, approximately 75.2 percent of the population aged five and up is fully vaccinated and 8.9 percent is partially vaccinated. Finally, the political and social climate across the State varies widely with respect to vaccination against COVID-19. Significant opposition to this alternative would be expected, due to a perception, albeit an incorrect one, that this alternative would impose a "vaccine mandate" for workers.

Table 6. Summary of Direct Costs and Benefits of Regulatory Alternatives Compared to the Proposed Regulation, in 2023 within the COVID-19 Prevention Initial Statement of Reasons

⁵¹ Federal OSHA, Analytic Spreadsheets in Support of the COVID-19 Vaccination and Testing ETS, October 2021.

⁵² State of California. Statewide vaccination data as of April 22, 2022, accessed at https://covid19.ca.gov/vaccination-progress-data/#overview on April 22, 2022.

available on the OSHSB website, summarizes the total costs and benefits of the proposed regulation and each alternative considered for the first 12-months after the regulation in enacted. Information from Table 6. Summary of Direct Costs and Benefits of Regulatory Alternatives Compared to the Proposed Regulation in 2023 is also listed below:

Benefits (In Billions)

Proposed Regulation = \$10.51

Alternative #1 = Not quantified; Difference = Indeterminate

Alternative #2 = \$2.79; Difference = -\$7.72

Costs (In Billions)

Proposed Regulation = \$0.49

Alternative #1 = Not quantified; Difference = Indeterminate

Alternative #2 = \$0.30; Difference = -\$0.19

Net Benefits (In Billions)

Proposed Regulation = \$10.03

Alternative #1 = Not quantified; Difference = Indeterminate

Alternative #2 = \$2.49; Difference = -\$7.53

CONTACT PERSONS

Inquiries regarding this proposed regulatory action may be directed to Christina Shupe (Executive Officer) or the back-up contact person, Steve Smith (Principal Safety Engineer) at the Occupational Safety and Health Standards Board, 2520 Venture Oaks Way, Suite 350, Sacramento, CA 95833; (916) 274-5721.

AVAILABILITY OF STATEMENT OF REASONS, TEXT OF THE PROPOSED REGULATIONS AND RULEMAKING FILE

The Board will have the entire rulemaking file available for inspection and copying throughout the rulemaking process at its office at the above address. As of the date this Notice of Proposed Action is published in the Notice Register, the rulemaking file consists of this Notice, the proposed text of the regulations, the Initial Statement of Reasons, supporting documents, or

other information upon which the rulemaking is based. Copies may be obtained by contacting Ms. Shupe or Mr. Smith at the address or telephone number listed above.

AVAILABILITY OF CHANGED OR MODIFIED TEXT

After holding the hearing and considering all timely and relevant comments received, the Board may adopt the proposed regulations substantially as described in this Notice. If the Board makes modifications which are sufficiently related to the originally proposed text, it will make the modified text (with the changes clearly indicated) available to the public at least 15 days before the Board adopts the regulations as revised. Please request copies of any modified regulations by contacting Ms. Shupe or Mr. Smith at the address or telephone number listed above. The Board will accept written comments on the modified regulations for at least 15 days after the date on which they are made available.

AVAILABILITY OF THE FINAL STATEMENT OF REASONS

Upon its completion, copies of the Final Statement of Reasons may be obtained by contacting Ms. Shupe or Mr. Smith at the address or telephone number listed above or via the internet.

AVAILABILITY OF DOCUMENTS ON THE INTERNET

The Board will have rulemaking documents available for inspection throughout the rulemaking process on its web site. Copies of the text of the regulations in an underline/strikeout format, the Notice of Proposed Action and the Initial Statement of Reasons can be accessed through the Standards Board's website at http://www.dir.ca.gov/oshsb.