

State of California  
Department of Industrial Relations  
Occupational Safety and Health Standards Board

Petition File No. 605

Board Staff Evaluation  
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State of California  
Gavin Newsom, Governor

## INTRODUCTION

Petition File No. 605 (Petition) was received from Joseph Alioto, current Occupational Safety and Health Standards Board (Board) Chair, on May 16, 2024. The Petition requests the Board to amend title 8, California Code of Regulations, to address dangers associated with failing horizontal sliding and swinging gates. The Petitioner's letter states that "[t]ypically, when a sliding gate fails, it comes off its track and falls away from the fence plane; however, other failures caused by imbalanced gates, the lack of safeties, failed gate stops and other problems can also cause serious injuries." The dangers of gates failing in California have also resulted in the deaths of employees and members of the public. Title 8 has one regulation, section 3324, for horizontal sliding gates, but there is currently no title 8 regulation for swinging gates.

## REQUESTED ACTION

To address the dangers of serious injury and death from failing horizontal sliding gates, the Petitioner requests the Board amend title 8, section 3324 related to the installation, operation, inspection and maintenance for these gates used to control access to or within properties. The Petitioner also asks the Board to consider a new regulation to govern swinging gates.

## BACKGROUND/HISTORY

### History of the Regulations for Horizontal Sliding Gates

On November 10, 2004, the Division of Occupational Safety and Health (Cal/OSHA) issued a memorandum with a Request for New, or Change in Existing, Safety Order (Form 9) that asked the Board to address fatal incidents Cal/OSHA had investigated where horizontal sliding gates had fallen on employees. The memorandum stated that these gates are typically:

...made of metal and have openings that span 10 to 40 feet into parking lots or other fenced/secured areas. The majority of accidents have occurred when a worker manually slides the gate into the fully open or closed position beyond its upper support or designed stop point leaving the gate's bottom wheels or track as the only support. Without vertical support, the gate is unstable and falls over onto the employee.<sup>1</sup>

In response, the Board developed title 8, chapter 4, subchapter 7, article 7, section 3324 for horizontal sliding gates. In the Initial Statement of Reasons for the proposed adoption of section 3324, the Board stated, "this rulemaking action addresses requirements for positive stops that would limit the travel of horizontal sliding gates to the designed, fully open or closed

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<sup>1</sup> Len Welsh, memorandum, Acting Chief of the Division of Occupational Safety and Health, State of California, November 10, 2004, subject: "Form 9-042, Section 3324 (new standard)"

position, and thus mitigate the hazard of gate falling onto an employee and causing fatal or serious injury.”<sup>2</sup>

On September 20, 2007, the Board approved the adoption of the proposed addition of title 8, General Industry Safety Orders, Chapter 4, Subchapter 7, Article 7, New Section 3324, Horizontal Sliding Gates. On October 10, 2007, the Office of Administrative Law approved this regulatory action pursuant to section 11349.3 of the Government Code.

### History of the Regulations for Swinging Gates

There is no title 8 regulation that pertains specifically to swinging gates.

## **PETITIONER’S ASSERTIONS**

The Petitioner asserts:

- If a horizontal sliding gate fails, it typically comes off its track and falls away from the fence plane.
- Other failures of horizontal sliding gates include imbalanced gates, the lack of safeties, failed gate stops and other problems that can also cause serious injuries.
- Title 8, section 3342, horizontal sliding gates, is facially inadequate to prevent the most significant types of sliding gate failures that have cost Californians their lives.
- The inadequacies of section 3342 could be resolved by amending the regulation to include the following:
  - Require the installation of a post stop or similar device to prevent a derailed sliding gate from failing more than 45 degrees from the vertical plane of the fence.
  - Require that a gate be properly balanced so as not to move under its own weight.
  - Require that wheels be covered.
  - Provide a mechanism to more faithfully ensure the proper functioning of positive stops already provided for in the current regulation.
- The Board to consider incorporating industry consensus standards into section 3342, such as those by the American Society for Testing and Materials (ASTM) and Underwriters Laboratories (UL. The Petitioner notes that the Board previously incorporated consensus standards into other regulations (e.g., section 3650 [Industrial Trucks], section 3638 [Elevated Work Platforms], section 3328 [Machinery and Equipment]).

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<sup>2</sup> Occupational Health and Safety Standards Board. (n.d.). Initial Statement of Reasons, California Code of Regulations, Title 8, Subchapter 7, Article 7, New Section 3324 of the General Industry Safety Orders

- The Board to consider the reasonableness of adopting a new regulation concerning swinging gates that incorporates the standards set forth in ASTM F900-11 and UL 325.

## **STAFF EVALUATION**

Board staff discussed Petition 605 with the Petitioner, representatives from The Hummingbird Alliance, the San Rafael City Attorney, representatives from a national fencing industry association and Cal/OSHA Consultation Senior Safety Engineers. Board staff reviewed relevant state and industry consensus standards (identified below) and books and articles about gates and the hazards they pose.

### **Relevant Standards**

#### ***Federal Standards***

There are no federal Occupational Safety and Health Administration regulations that specifically address the hazards associated with horizontal sliding gates or swinging gates used for access to properties or locations within properties.

#### ***California Standards***

Title 8, section 3324 Horizontal Sliding Gates is the only title 8 regulation that specifically addresses gates used for accessing properties or locations within properties.

#### ***Consensus Standards***

- ASTM F1184-23<sup>E1</sup>: Standard Specification for Industrial and Commercial Horizontal Slide Gates
- ASTM F2200-20: Standard Specification for Automated Vehicular Gate Construction
- ASTM F900-11: Standard Specification for Industrial and Commercial Steel Swing Gates
- UL 325: Door, Drapery, Gate, Louver, and Window Operators and Systems

#### ***Other Standards, Guidelines, Codes***

- California Residential Code, Title 24, Part 2, Chapter 11B, Section 11B-404 Doors, doorways and gates
- California Residential Code, Title 24, Part 2.5, Appendix AO Automatic Vehicular Gates
- City of Larkspur, Municipal Code, Title 15, Chapter 15.56 Gate Safeguards
- City of San Rafael, Code of Ordinances, Chapter 12.350 Gate Safeguards

### **Staff Analysis**

Gates used to prevent or limit access to properties or locations within properties are very common. Board staff was unable to find exactly how many gates exist, however, California has 1,759,091 businesses—61,283 employ 50 people or more — if 25% of those businesses employing more than 50 people had at least one gate, Board staff estimates there are approximately 15,320 gates in existence.<sup>3</sup> This number may vastly underestimate the number of gates since Board staff only accounted for one gate at businesses with 50 or more employees.

The Petitioner refers to failing gates as the moment when gates come off their track and fall away from the fence plane, are imbalanced, lack a safety device, have failed gate stops, or other problems that could cause serious injuries. Board staff found that these failures can also result in a person's death.

The frequency of gates failing is difficult to determine because Board staff was unable to find a complete record of incidents specific to this hazard. However, while preparing this evaluation, on May 29, 2024, an employee at a lumber yard in Anaheim, California was killed when an iron gate became unhinged and fell on top of them; the gate was allegedly so heavy that employees had to use a forklift to remove it. To identify if there have been any additional workplace incidents reported recently in California, Board staff used the Occupational Safety and Health Administration's webpage Investigation Summaries search tool. By searching for incidents in California using the keyword "gate" between January 1, 2019, to June 12, 2024, Board staff found five workplace incidents where a gate had fallen on an employee. Among these, four resulted in fatalities and one caused a serious injury.<sup>4</sup>

There are also instances where a non-employee could be killed when a horizontal sliding gate or swinging gate fails. At the May 20, 2024, Board meeting Eric Quanbeck, co-founder of The Hummingbird Alliance, did a presentation in support of Petition 605. In December 2019, seven-year-old Alex Quanbeck, Eric Quanbeck's son, was trying to manually close a gate at his school when it came off of the track and fell on him. Alex Quanbeck died as a result of his injuries. Eric Quanbeck pointed out that since 2007 across the United States, there have been 12 incidents where gates had fallen and killed a child.

When the Board originally approved section 3342, it was intended to "mitigate the hazard of a gate falling onto an employee and causing fatal or serious injury."<sup>5</sup> Unfortunately, that goal has

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<sup>3</sup> State of California, Employment Development Department. (2023). Table 1 Number of Businesses, Number of Employees, and Second Quarter Payroll by Size of Business.

[https://labormarketinfo.edd.ca.gov/file/indsize/Chart\\_SOB2023\\_2.pdf](https://labormarketinfo.edd.ca.gov/file/indsize/Chart_SOB2023_2.pdf). Accessed on June 11, 2024.

<sup>4</sup><https://www.osha.gov/ords/imis/accidentsearch.html>. Accessed on June 12, 2024.

<sup>5</sup> Occupational Health and Safety Standards Board. (n.d.). Initial Statement of Reasons, California Code of Regulations, Title 8, Subchapter 7, Article 7, New Section 3324 of the General Industry Safety Orders.

not been fully achieved. The fencing industry, ASTM and UL have recognized these hazards and have established standards to provide engineered devices that will prevent gates from falling when they fail. Board staff believes these newly updated standards should be evaluated and considered to amend section 3342 and adopt a similar standard for swinging gates to further mitigate the hazards that horizontal and swinging gates currently present and are not being addressed.

In conclusion, the Board staff supports Petition 605 and the Petitioner's assertions. Board staff further recommends that instead of just referencing the consensus standards, plain language be used to clearly state what employers must do to protect workers. Board staff recommends the Board direct staff to convene a representative advisory committee to consider both revising section 3342 for horizontal sliding gates and adopting a new standard for swinging gates.

## **STAFF RECOMMENDATION**

Board staff recommends Petition File No. 605 be **GRANTED** to the extent the Board directs staff to convene an advisory committee to undertake a review of section 3342 for horizontal sliding gates and consider a new section to address any unmitigated hazards presented by swinging gates. The committee's discussion and evaluation should include, but is not limited to, industry best practices, codes implemented by other regulatory agencies and related consensus standards (e.g. ASTM F1184-23<sup>1</sup>, ASTM F2200-20, ASTM F900-11 and UL 325).