

DEPARTMENT OF INDUSTRIAL RELATIONS  
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH1515 CLAY STREET, SUITE 1901  
OAKLAND, CA 94612  
(510) 286-7000 FAX: (510) 286-7037MAILING ADDRESS:  
P. O. Box 420603  
San Francisco, CA 94142-0603

January 21, 2014

TO: ZIP LINE OWNERS AND OPERATORS

SUBJECT: REQUIRED INSPECTIONS and EQUIPMENT REQUIREMENTS  
**UPDATE and MODIFICATION of OCTOBER 30, 2013 NOTICE**

Background: On October 30, 2013 the Division of Occupational Safety & Health (Division) issued an advisory notice to Zip Line Owners and Operators to inform them that commercial zip lines are subject to the Division's regulatory authority with respect to amusement rides and to provide guidelines and deadlines for complying with certain safety standards. The Division received feedback on the contents of that notice from several sources, including at a public advisory meeting conducted by the Division in Oakland on January 15, 2014. In light of that feedback, this notice is being issued to modify and clarify requirements set forth in the October 30 notice.

Required Permit to Operate Commercial Zip Line: Any zip line that meets the definition of an amusement ride as set forth in of Labor Code sections 7901(a) or 7921(a) must be inspected and have a permit to operate issued by the Division. Regulatory requirements can be found in Title 8 of the California Code of Regulations at sections 3195.1 – 3195.14 (permanent rides) and 3900 – 3920 (portable or temporary rides). Prior to issuance of a permit, each ride must have been evaluated by a professional engineer, and components must have been tested to recognized standards.

Specific Requirements for Harnesses for Patrons: The Division is replacing the guidelines stated in the October 30 notice with the following:

- Owners and operators may provide riders with single or dual-component harnesses that provide full body containment, including combination chest with sit harnesses. Harnesses and attachments used for riding on the zip line must have been tested in the configuration in which they will be used for construction and performance, including in the upright and inverted position, in accordance with ANSI Z359.1, NFPA 1983, OSHA 29 CFR PART 1926.502(d), UIAA 105, ASTM F1772, EN 12277, or an equivalent test method. If there is a fall hazard to participants then appropriate fall protection must also be provided.

Brakes: All zip lines must include a primary and emergency or other equally effective braking system. (8 Cal. Code Regs. §§ 3904, 3195.3, 3195.4, and 3195.9; and ASTM F 1159-02, §12.)

Use of Trees as Anchor Points: A tree used as an anchor point in a zip line must meet the same structural support and integrity requirements as a constructed platform. An ISA-certified arborist or other professional with equivalent expertise will need to provide this certification, and a licensed engineer will need to determine if the tree provides sufficient strength within the system.

Other Important Considerations:

- Test protocols for harnesses and other equipment are designed to evaluate the ability of the equipment to protect the participant against specific hazards. If an operator can demonstrate that a particular hazard is not present, then it is not necessary to use equipment that protects against that particular risk.
- In addition to assuring the safety of patrons on amusement rides, the Division is also responsible for assuring safe and healthful working conditions for workers in nearly every place of employment in the State of California. (This responsibility for worker safety applies even if recreational facilities are excluded from the definitions or standards governing amusement rides.) *Depending on the operational set-up and conditions, workers may require different and more stringent safety measures than patrons. In particular, if employees are exposed to falls, including at unguarded edges of platforms, approved fall protection/fall arrest systems are required.*
- An organized camp, as defined in Health and Safety Code section 18897, is for most purposes under the exclusive regulatory authority of the State Department of Public Health and any applicable local agencies. (See Health and Safety Code section 18897.6.) If the Division receives a complaint or inquiry involving patron safety at a zip line operated by such a camp, it may refer the matter to the Department of Public Health or applicable local authorities.

Additional information: As noted, the purpose of this notice is to modify and clarify the earlier advisory notice sent to Zip Line Owners and Operators in late October. This notice highlights some current specific issues pertaining to zip lines, but is not a complete summary of amusement ride standards and requirements or of the questions that may arise in the inspection or permitting of any particular ride. For more information please consult the regulations and our website, and please feel free also to contact Nancy Medeiros, Regional Manager for the Division's Amusement Ride and Tramway Unit at [nmedeiros@dir.ca.gov](mailto:nmedeiros@dir.ca.gov) or (916) 263-3511.

The Division staff greatly appreciates the public input we have received on zip line issues over the past few months, and we encourage you to continue providing that input as safety standards and our understanding of your industry continue to evolve. For further information about this notice or safety and compliance standards in general, please contact Ms. Medeiros at the e-mail address or phone number listed immediately above.

Sincerely,

Deborah Gold, MPH, CIH  
Deputy Chief for Health and Engineering Services