

<b>PROCEDURES AND TRAINING FOR ZIPLINE OPERATORS</b>
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**No: SO-P4 070904 Rev 1**

**Date of Issue: October 1, 2024**

*This safety order is issued pursuant to section 31 of the Safety Standards Act. A person affected by this safety order may appeal this order in writing to the Safety Standards Appeal Board within 30 days. The appeal process is set out on the Safety Standards Appeal Board's website at [www.gov.bc.ca/safetystandardsappealboard](http://www.gov.bc.ca/safetystandardsappealboard).*

*Failure to comply with a safety order is an offence under section 72 of the Safety Standards Act.*

This is a revision to safety order SO-P4 070904 1, issued on April 22, 2010, which specifies requirements to all owners of zip lines with respect to operating procedures for connecting a patron to the zip lines and operator/attendant training.

**Part 1: Details of Regulated Work or Regulated Product**

This safety order is being issued in relation to:

Regulated Work – General			Regulated Product – General
Regulated Work – Specific Class		x	Regulated Product – Specific Class
Specific Regulated Work			Specific Regulated Product

CSA Z267-00, Safety Code for Amusement Rides and Devices, is the adopted standard in British Columbia. However, section 8 of CSA Z267-00 lacks specific requirements for zip line operating procedures and training. There have been reported incidents and hazards related to zip lines in British Columbia, where procedural and training deficiencies were identified as contributing factors. These incidents and hazards include:

- i. Patrons being launched with improperly fitted personal safety equipment resulting in a fall from height.
- ii. Patrons being launched without their personal safety equipment attached to the zip line trolley.
- iii. Instances where operating procedures were not followed and inadequate supervision of patrons on the zip line course led to improper use of personal protective equipment which created a fall from height hazard.

This safety order is being issued to reduce the risk of personal injury associated with these hazards.

**Part 2: Requirements of this Safety Order**

Effective immediately, all operators of zip lines must take the following actions:

**Operating Procedures**

1. The owner/operator must have, site-specific policies, procedures, and practices that define the minimum criteria for safe zip line operation. These must include a pre-use verification procedure for personal safety equipment to ensure correct fitting and functionality before patrons are permitted onto the zip line. This procedure must include a secondary means of verification which requires re-checking the equipment once it has been fitted to the patron. This may include, but is not limited to:
  - i. An additional operator or attendant.
  - ii. Administrative controls such as checklists.
2. The owner/operator must have a site-specific written process for pre-launch equipment checks. This process must ensure that the operator verifies that each patron is correctly attached to the zip line and that the zip line clearance envelope is free from hazards before launching.
3. The owner/operator must have a patron supervisory plan including:
  - i. Defined-operator/attendant to patron ratios as specified by the manufacturer.
  - ii. A patron screening process consistent with the manufacturer recommendations.
  - iii. Methods to assess and respond to a change in the patrons' physical abilities, and behavior during zip line participation.
4. Ensure that all policies and procedures are readily available to all operators and attendants.

### **Operating Requirements**

1. In addition to the CSA Z267-00 pre-opening inspection requirements, and before the zip line(s) are permitted to carry patrons, the operator/attendant shall conduct and document a pre-use inspection of the personal safety equipment that is being put into service for that day. The owner/operator shall address any critical maintenance issues discovered during this inspection that pose immediate risks to patrons or operators/attendants before allowing patrons to use the zip line. The remediation of critical maintenance items shall be documented.

*Note: Personal safety equipment includes but is not limited to harnesses, lanyards, trolleys, carabiners, and helmets.*

2. When patrons independently connect/disconnect their own personal safety equipment, the supervisory plan must specify the required number and positioning of operators/attendants required to supervise patrons. Operators and attendants must be able to always observe patrons and take immediate corrective actions to reduce the risk of injury.
3. Post safety rules and verbally explain them to patrons before they ride a zip line or participate in a zip line course.
4. Provide patrons with essential safety instructions for using the zip line or zip line course, including:
  - i. correctly using the provided personal safety equipment
  - ii. use of the braking system when active braking is used.
  - iii. Specific instructions for arriving at the landing area.

### **Operator and Attendant Training**

1. Provide specific training with respect to the requirements of this safety order and the requirements of CSA Z267-00 for all personnel responsible for fitting patrons with personal safety equipment and for those responsible for launching and receiving patrons.
2. Conduct training sessions where trainees demonstrate procedures under trainer supervision to ensure understanding and compliance.

3. Training for all personnel must occur at intervals not exceeding 12 months, at the start of each new season, and with new staff. All personnel training shall be documented.

**Part 3: Details of Issue (if applicable)**

This safety order applies to all British Columbia amusement device contractors operating zip lines.

All policies, procedures, and training records must be available for inspection by a safety officer upon request.

**Part 4: Details of Ordering Safety Manager or Safety Officer – Please read following page**

*I certify that I am authorized to issue this safety order in accordance with section 15 (d) of the Safety Standards Act or that I have been delegated this power under section 15 (g) of the Safety Standards Act.*

Nav Chahal  
Provincial Safety Manager, Amusement Devices

**Date: October 1, 2024**

***Safety Standards Act:***

## Safety Orders

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- (1) To prevent, avoid or reduce risk of personal injury or damage to property, a provincial safety manager may, in writing, issue a safety order.
  - (2) A safety order may be issued to any person in relation to any of the following:
    - (a) regulated work or regulated products generally;
    - (b) a specific class of regulated product or regulated work;
    - (c) a specific regulated product or regulated work.
  - (3) For certainty, a safety order issued under this section may apply to
    - (a) regulated work that meets the requirements under this Act,
    - (b) regulated work that previously met the requirements under this Act or a former Act but does not meet the current requirements under this Act,
    - (c) regulated products that meet the requirements under this Act, or
    - (d) regulated products that previously met the requirements under this Act or a former Act but do not meet the current requirements under this Act, including a regulated product that bears a certification mark.
  - (4) A safety order may specify any requirement that is intended to prevent, avoid or reduce the risk of personal injury or damage to property and may include any of the following orders:
    - (a) that an existing regulated work or regulated product must be made safe in compliance with the safety order;
    - (b) that a regulated product must be
      - (i) disconnected from a power source,
      - (ii) uninstalled, or
      - (iii) modified before continued use;
    - (c) that a regulated product must be operated, installed, manufactured or disposed of only as specified or that a regulated product must not be moved;
    - (d) that current or future regulated work or a regulated product must conform to the terms or conditions of the order;
    - (e) that a person take or refrain from taking any action that a safety manager considers necessary to prevent, avoid or reduce a risk of personal injury to persons or damage to property;
    - (f) that the manufacturer make reasonable efforts to recall the regulated product.
  - (5) The provincial safety manager must give written notice of the safety order to the following persons:
    - (a) the manufacturer of the regulated product;
    - (b) an owner of the regulated product if the identity of the owner is known to the provincial safety manager;
    - (c) the person in charge of the regulated work.
  - (6) The notice must state the reasons for the decision and that the person has the right to appeal the decision to the appeal board.
  - (7) Despite section 54, a safety order may not be stayed during an appeal.

**References:***Safety Standards Act*