



# COLORADO

Department of  
Regulatory Agencies

Division of Professions and Occupations

DATE: Sept 15, 2022

TO: All Interested Parties

FROM: Lawrence R. Smith, P.E.  
Supervisory Tramway Engineer  
Colorado Passenger Tramway Safety Board

RE: Adoption of the ANSI B77.1-2022 - Draft Proposal

New ANSI B77.1-22 has been issued and Colorado will adopt the new ANSI by reference beginning May 2, 2023.

## Proposed Rule:

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## **FOREWORD**

This booklet contains rules, statutes, and policies which pertain to the licensure of passenger tramways in Colorado. Passenger tramways must be licensed annually by the Colorado Passenger Tramway Safety Board before they can lawfully operate in Colorado. The Board has established standards of design and operation practices for all recreational tramways, and requires inspections of each device at least twice annually.

Colorado Revised Statutes Title 25, Article 5, Part 7 is the legal authority for the Board and is the basis for all Board activities. This statute is located at the end of this booklet.

The Board's rules and regulations are comprised of two documents: the "American National Standard for Passenger Tramways - Aerial Tramways, Aerial Lifts, Surface Lifts, Tows and Conveyors - Safety Requirements" and the "American National Standard for Funiculars - Safety Requirements" known simply as "ANSI", and the Colorado Rules and Regulations.

The ANSI documents are available for review at the Board's office during normal working hours or can be obtained by contacting the National Ski Areas Association at 303/987-1111.

The Colorado Rules and Regulations that contain technical rules not found in ANSI, ANSI rules which have been revised by the Board, and the Board's administrative rules are found in this booklet. Revision of these rules is an ongoing process. You will be notified when any rules are added, deleted, or revised by the Board.

Also included in this booklet are general policies adopted by the Board and a list of rules, which have been revised, added, or deleted since the last publication.

You are encouraged to contact the Colorado Passenger Tramway Safety Board at 303/894-7785 if you have any questions regarding the contents of this booklet.



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**Rule 0.1 Preamble and incorporation by reference.** Section 25-5-704(1)(a) of the Colorado Revised Statutes allows the Colorado Passenger Tramway Safety Board (“Board”) to “use as general guidelines the standards contained in the 'American Standard Safety Code for Aerial Passenger Tramways', as adopted by the American Standards Association, Incorporated, as amended from time to time.” Since 1965, when this provision was enacted, the American Standards Association, Inc., has been succeeded by the American National Standards Institute, Inc. and the American Standard Safety Code updated. The relevant publications are now known as the “American National Standard for Passenger Ropeways – Aerial Tramways, Aerial Lifts, Surface Lifts, Tows and Conveyors – Safety Requirements” (“ANSI B77.1-2011”) and the “American National Standard for Funiculars – Safety Requirements” (“ANSI B77.2-2004”).

The Board adopts and incorporates by reference, with certain additions, revisions, and deletions, the ANSI standards as listed below:

B77.1-1960	June 8, 1960	USA standard Safety Code for Aerial Passenger Tramways
B77.1a-1963	July 1, 1963	Addenda to USA standard Safety Code for Aerial Passenger Tramways
B77.1b-1965	July 26, 1965	Addenda to USA standard Safety Code for Aerial Passenger Tramways
B77.1-1970	March 17, 1970	American National Standard - Safety Requirements for Aerial Passenger Tramways
B77.1-1973	January 25, 1973	American National Standard - Safety Requirements for Aerial Passenger Tramways
B77.1-1976	November 19, 1975	American National Standard - Safety Requirements for Aerial Passenger Tramways
B77.1a-1978	January 17, 1978	Addendum to American National Standard - Safety Requirements for Aerial Passenger Tramways
B77.1-1982	July 16, 1982	American National Standard - for passenger tramways - aerial tramways and lifts, surface lifts and tows – Safety Requirements
B77.1a-1986	December 2, 1985	Supplement to American National Standard - for passenger tramways - aerial tramways and lifts, surface lifts and tows - Safety Requirements



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B77.1b-1988	March 14, 1988	Supplement to American National Standard - for passenger tramways - aerial tramways and lifts, surface lifts and tows – Safety Requirements
B77.1-1990	March 26, 1990	American National Standard for Passenger Tramways - Aerial Tramways and Lifts, Surface Lifts and Tows - Safety Requirements
B77.1-1992	December 2, 1992	American National Standard for Passenger Tramways - Aerial Tramways, Aerial Lifts, Surface Lifts, Tows - Safety Requirements
B77.1-1999	March 11, 1999	American National Standard for Passenger Ropeways - Aerial Tramways, Aerial Lifts, Surface Lifts, Tows and Conveyors - Safety Requirements
B77.2-2004	December 31, 2003	American National Standard for Funiculars- Safety Requirements Aerial Tramways, Aerial Lifts, Surface Lifts, Tows and Conveyors - Safety Requirements
B77.1-2006	April 17, 2006	American National Standard for Passenger Ropeways - Aerial Tramways, Aerial Lifts, Surface Lifts, Tows and Conveyors - Safety Requirements
B77.1-2011	May 2, 2011	American National Standard for Passenger Ropeways - Aerial Tramways, Aerial Lifts, Surface Lifts, Tows and Conveyors - Safety Requirements
B77.1-2017	Feb 2, 2019	American National Standard for Passenger Ropeways - Aerial Tramways, Aerial Lifts, Surface Lifts, Tows and Conveyors - Safety Requirements
B77.1-2022	May 2, 2023	American National Standard for Passenger Ropeways - Aerial Tramways, Aerial Lifts, Surface Lifts, Tows and Conveyors - Safety Requirements
<u>B77.1-2022</u>	<u>May 1, 2023</u>	<u>American National Standard for Passenger Ropeways - Aerial Tramways, Aerial Lifts, Surface Lifts, Tows and Conveyors - Safety Requirements</u>

As used in this document, the term “rules and regulations” means the referenced ANSI Standards and the “State of Colorado Department of Regulatory Agencies Passenger Tramway Safety



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Board Rules and Regulations.” The Board Rules and Regulations do not include any later amendments to or editions of the standards listed above.

A copy of each of the standards, codes, and guidelines listed above are available for public inspection at the Board office at the Division of Professions and Occupations, Department of Regulatory Agencies, 1560 Broadway, Suite 1350, Denver, Colorado, 80202, and at any state publications depository library. For further information regarding how this material can be obtained or examined, contact the Board's Program Director at 1560 Broadway, Suite 1350, Denver, Colorado, 80202, (303) 894-7785.



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**DATE:** Sept. 15, 2022

**TO:** All Interested Parties

**FROM:** Lawrence R. Smith, P.E.  
Supervisory Tramway Engineer  
Colorado Passenger Tramway Safety Board

**RE:** **Section 4 Missed Rules - Draft Proposal**

During the adoption of multiple rules to correspond with the adoption of the ANSI B77.1-2017 new Standard, an entire page was inadvertently omitted from the CPTSB Rules and regulations.

The proposed Rules are dated correctly for the rule requirements and the appropriate equipment age. The ANSI B77.1-2017 has new requirements that existing equipment cannot comply with and require the adoption of the then current rules into the CPTSB Rule and Regulations to cover the existing equipment.

This proposal aims to correct that omission by the adoption of the following rules;



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**Proposed Rule:**

Table 4-3 - Required stopping devices

Lift category	Service Brake	Drive Sheave Brake	Rollback device	Drive train backstop	Retarding device (see 4.1.2.4)
<b>Self-braking:</b> A lift that decelerates, stops, & remains stopped within the service brake performance requirements without a braking device	Not Required	Required	Not Required	Not Required	Not Required
<b>Nonoverhauling:</b> A lift that will not accelerate in either direction when it is not driven, but is not self-braking	Required*	Required	Not Required	Not Required	Not Required
<b>Overhauling, reverse direction:</b> A lift that will accelerate in the reverse direction when it is not driven	Required	Required	Required	Required †	Not Required
<b>Overhauling, forward direction:</b> A lift that will accelerate in forward direction when it is not driven	Required	Required	Not Required	Not Required	Required
<p>* A service brake is not required if the overhauling, reverse direction lift will meet the service brake stopping requirements under most unfavorable design loading conditions.</p> <p>† A drive train backstop is not required if the condition of 4.1.2.6 (b) is met</p>					





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### **4.2.4 Operation circuits**

Prior to April 15, 2019:

An operation circuit is a circuit that provides power to or controls the aerial lift machinery.

The designer or manufacturer shall identify the operation circuits that require periodic testing and develop procedures and frequency for testing. As a minimum, all operation circuits shall be tested and calibrated annually.

Operation circuits include, but are not limited to:

- a) power circuits;
- b) drive fault circuits;
- c) normal stop (see 1.4 - normal stop and 4.1.2.5);
- d) speed command circuits (i.e., fast, slow, etc.);
- e) internal combustion engine speed control;
- f) power unit interlock (see 4.1.2.1.3);

### **4.2.5 Supervision circuits**

Prior to April 15, 2019:

Supervision circuits include all communications systems. In addition, supervision circuits may be provided to monitor or supervise the performance of various aerial lift systems or provide the aerial lift operator with system information.

The designer or manufacturer shall identify supervision circuits that require periodic testing and develop procedures and frequency for testing supervision circuits. As a minimum, all supervision circuits shall be calibrated and tested annually.

Supervision circuits may include, but are not limited to:



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- a) telephone and sound powered systems (see 4.1.1.7);*
- b) information display circuits;*
- c) audible warning devices (see 4.2.10);*
- d) overhead cable supervision (4.2.1.4);*
- e) wind speed and direction sensors and display units;*
- f) gearbox oil pressure, oil flow and temperature;*
- g) pneumatic and hydraulic tension system pressure (see 4.2.5.1);*
- h) unauthorized passenger detection;*
- i) rope position detectors (see 4.2.5.2);*
- j) acceleration/deceleration error (see 4.2.5.3).*

### **4.2.5.1 Pneumatic and hydraulic tension systems**

Prior to April 15, 2019:

When pneumatic or hydraulic tension systems are used, pressure-sensing devices shall also be incorporated that will stop the aerial lift system in case the operating pressure goes above or below the design pressure range. Such pressure-sensing devices shall be located close to the actual tensioning device. It shall not be possible to isolate the pressure sensor from the actual tensioning device.

### **4.2.5.2 Rope Position Detection**

Prior to April 15, 2019:

On lifts where the carrier speed exceeds 600 feet per minute (3.0 meters per second), at least one device that senses the position of the rope shall be installed on each sheave unit. The device shall initiate a stop before the rope leaves the sheave in the horizontal direction or when the rope is displaced in the vertical direction by



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one rope diameter plus the distance that the rope is displaced vertically from the sheave by the grip (see 4.1.3.3.2(g)).

When the device that senses the position of the rope is the only deropement switch, it shall meet the requirements of a protection circuit as described in section 4.2.3. An aerial lift system may utilize a rope position detector as a supervision circuit as described in section 4.2.5 only if it has another deropement detection system that meets the requirements of a protection circuit.

### **4.2.5.3 Acceleration/deceleration monitoring.**

Prior to April 15, 2019:

The rate of acceleration and deceleration of the aerial lift shall be monitored. In the event that the acceleration or deceleration exceeds the provisions of 4.1.2.4, the aerial lift shall stop and annunciate the error.

EXCEPTION: Prime movers equipped with fluid couplings, centrifugal clutches, or wound rotor motors.

Prior to May 15, 2006  
Not Required

### **4.2.6 Bypass circuits**

Prior to April 15, 2019:

A temporary circuit may be installed for the purpose of bypassing failed electrical circuits. These bypass circuits when used must meet the requirements of 4.3.2.5.9.

### **4.2.7 Electrical prime mover**

Prior to April 15, 2019:

All aerial lift systems equipped with electrical prime movers (electrical motors) shall have phase-loss protection on all power phases and under-voltage protection or over-voltage protection, or both, when speed regulation can be adversely affected by such voltage variations.



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DATE: Sept 15, 2022

TO: All Interested Parties

FROM: Lawrence R. Smith, P.E.  
Supervisory Tramway Engineer  
Colorado Passenger Tramway Safety Board

RE: **22.3.5 Additional required inspection - Draft Proposal**

There has been some confusion in recent years as to the application of the ANSI B-77.1 requirement for additional inspections beyond the original 2 inspections per 2000 hours.

With tramways operating during winter AND summer season, as well as tramways operating year-round, this is an attempt to clarify and codify the requirements for additional inspections.

### **Proposed Rule:**

**22.3.5 Additional required inspection.** In addition to the annual licensing and unannounced inspections for each passenger tramway, there may be additional required inspections ~~after each 2000 hours of operation.~~ These inspections include:

#### **a) Single Season/Less than 2000 hours per year Operation**

For a passenger tramway that operate for a single season (winter or summer), or for less than 2000 hours per calendar year if operating on a year-round schedule (three seasons or more), the tramway shall incur two inspections: one mechanical licensing inspection prior to licensure and one unannounced operational inspection during the operating season.

#### **b) Two Season Operations (Winter-Summer)**

For a passenger tramway operating for both a winter AND summer season, the tramway shall incur a minimum of three inspections: one mechanical licensing inspection prior to licensure, one unannounced operational inspection during the winter operating season and one unannounced operational inspection during the summer operating season.



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### **c) Tramways Operating MORE than 3000 hours per year**

For a passenger tramway that operates for more than 3000 hours per calendar year (**regardless of seasonal or year-round operation**), the tramway shall incur three (3) inspections:

- a) One mechanical licensing inspection
- b) Two unannounced operational inspections during the operating season (i.e. winter/summer)

### **d) Tramways Operating MORE than 4000 hours per year**

For a passenger tramway that operates for more than 4000 hours per calendar year, the tramway shall incur four (4) inspections:

- a) One mechanical licensing inspection prior to licensure
- b) One mechanical licensing inspection mid-year
- c) Two unannounced operational inspections during the operating season typically between the mechanical inspections.

Note: 22.3.4(a),(b), (c) and (d) do not exclude other possible required inspections, such as 22.3.4 Special Inspections or Major or Minor Modification Inspections,



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DATE: Sept 15, 2022

TO: All Interested Parties

FROM: Lawrence R. Smith, P.E.  
Supervisory Tramway Engineer  
Colorado Passenger Tramway Safety Board

RE: **22.4.4 Inspection report - Proposed Draft Revisions**

Recent licensing inspections has led to a discussion of CPTSB Rule 22.4.4 concerning deficiencies and how the deficiency reports are written.

Rule 22.4.4 states:

*“22.4.4 **Inspection report.** Upon completion of the inspection, the inspector shall provide the area operator of the passenger tramway(s) being inspected, or his agent, with a copy of the preliminary report of observations made during the inspection. As soon as possible, but no later than fifteen (15) days after the completion of the inspection, the inspector shall transmit to the Board a final report. This report shall include a statement as to whether it reasonably appears to the inspector that the passenger tramway(s) inspected comply with the statutes, these rules and regulations, and any other applicable orders of the Board, and that the inspection of such passenger tramway(s) disclosed no unreasonable safety hazards.*

*For each passenger tramway inspected, the inspector shall list the items not in compliance with these rules and regulations. The area operator of the passenger tramway(s) inspected shall also receive a copy of the inspector's final report.*

*Deficiencies stated in the annual inspection report shall be remedied as set forth in section 20.*

*Deficiencies stated in the annual unannounced inspection report and in any additional required inspection report(s) shall be remedied. A letter from the area's designated agent or appointed substitute designee stating that all the deficiencies listed in the inspection report have been corrected, must be received by the Board office within twenty-eight (28) days from the completion of the*



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*inspection. Such letter shall bear a recognizable signature, printed name, and title and be submitted as an original or transmitted by electronic means.*

*Deficiencies stated in an acceptance test report(s) as required in 22.3.3.1 shall be remedied. A letter from the area's designated agent or appointed substitute designee stating that all the deficiencies listed in the inspection report have been corrected, must be received and acknowledged by the Board office before the tramway can open for public operation. Such letter shall bear a recognizable signature, printed name, and title and be submitted as an original or transmitted by electronic means.*

*The inspection completion date shall be noted on both the preliminary and final inspection report.”*

This wording has been in place since the first version of the CPTSB Rules and Regulations issued in 1977.

During an initial Acceptance Test Inspection this past fall, a request was made for the possibility of licensing the next day after the test was complete. As usual, there were specific ANSI deficiencies, but there were also several deficiencies that were “non-specific” to ANSI. Those “non-specific” deficiencies listed were not an immediate hazard, but may have become hazards if the items were not completed or addressed in a timely manner.

In order for the area to obtain a license from the CPTSB, **ALL** deficiencies listed in the Acceptance Test would have to be completed prior to licensing. With this, the “non-specific” deficiencies would delay the licensing and opening of the tramway.

For years, the CPTSB Inspectors have been writing deficiencies under the ANSI X.3.3 Maintenance that involve maintenance items that need attention but are not specifically detailed in the ANSI Standard or CPTSB Rules. This occurs in both Acceptance Test Inspections as well as Annual Licensing Inspections.

Such items may include, but not limited to:

- Completing steps into Operator enclosures
- Adjusting floor plates for non-trip hazards
- Sealing terminal section seams to prevent leakage onto equip.
- Carrier parking rails and switches that attach to the terminals
- Replacing Burned out lights on Control panels
- Repair Broken Door Handle
- Replacing or repairing torn air filters for Electric Motors



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- Completing Lift operator enclosures
- Complete terminal downspouts and install heat tapes
- Repairing or installing windows

However, when the licensee is under a short licensing time frame, such as opening a new tramway, those “non-specific” ANSI deficiencies have the potential of being completed after a tramway has opened to the public.

Potentially many such issues are non-specific safety-related items that may affect the operation or maintenance of the tramway. In the past, the CPTSB Inspectors have written many of these items up under “general maintenance” rule numbers in ANSI such as X.3.3.1 General and the licensees have corrected those deficiencies in the normal process.

We would like to begin a discussion of the rules to review for possible revisions to better define the expectations of “Observations” and “Deficiencies.”

The following is a draft of a proposed revision of Rule 22.4.4 for discussion:

***“22.4.4 Inspection report. Upon completion of the inspection, the inspector shall provide the area operator of the passenger tramway(s) being inspected, or his agent, with a copy of the preliminary report of observations made during the inspection. As soon as possible, but no later than fifteen (15) days after the completion of the inspection, the inspector shall transmit to the Board a final report. This report shall include a statement as to whether it reasonably appears to the inspector that the passenger tramway(s) inspected comply with the statutes, these rules and regulations, and any other applicable orders of the Board, and that the inspection of such passenger tramway(s) disclosed no unreasonable safety hazards.***

*For each passenger tramway inspected, the inspector shall list ~~these items~~ the deficiencies not in compliance with these rules and regulations, and observations requiring attention that may affect the safety, maintenance and operations of the tramway. The area operator of the passenger tramway(s) inspected shall also receive a copy of the inspector’s final report.*

*Observations shall be remedied within 28 days from the completion of the inspection. If the observation is not corrected when the deficiency response letter is submitted, a proposed remedy to correct the observation shall be included in the deficiency response letter and shall be subject to rejection by the Supervisory Tramway Engineer.*





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*Deficiencies stated in the annual inspection report shall be remedied as set forth in section 20.*

*Deficiencies stated in the annual unannounced inspection report and in any additional required inspection report(s) shall be remedied. A letter from the area's designated agent or appointed substitute designee stating that all the deficiencies listed in the inspection report have been corrected, must be received by the Board office within twenty-eight (28) days from the completion of the inspection. Such letter shall bear a recognizable signature, printed name, and title and be submitted as an original or transmitted by electronic means.*

*Deficiencies stated in an acceptance test report(s) as required in 22.3.3.1 shall be remedied. A letter from the area's designated agent or appointed substitute designee stating that all the deficiencies listed in the inspection report have been corrected, must be received and acknowledged by the Board office before the tramway can open for public operation. Such letter shall bear a recognizable signature, printed name, and title and be submitted as an original or transmitted by electronic means.*

*The inspection completion date shall be noted on both the preliminary and final inspection report.”*



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DATE: Sept 15, 2022

TO: All Interested Parties

FROM: Lawrence R. Smith, P.E.  
Supervisory Tramway Engineer  
Colorado Passenger Tramway Safety Board

RE: **Section 23 Passenger tramway incidents - Draft Proposal**

The original Passenger Tramway Reporting requirements developed in 1996 do not accurately reflect advancements in multi-media electronic communications in reporting injuries and fatalities that may occur on tramways.

The major revision proposed is in Sec. 23.1 Definitions, in which an injury involving a possible Passenger Tramway Failure or ANY Fatality involving the Passenger Tramway is reportable to the Board within a **ONE HOUR** time period. The requirement for a tramway mechanical failure has not changed and is still covered in Sec. 23.1(g).

Please review the proposed revisions and return your comments and thoughts. This is a Major change to the reporting requirements and there is no set timeframe for adopting these revisions.

### **23.1 Definitions**

"Reportable passenger tramway incident" is defined as the following.

(a) Any incident from a possible malfunction of a passenger tramway in which a person is injured, or killed any trauma-related fatality involving the passenger tramway that occurs between the load board and unload board of the tramway. The tramway shall cease operation as defined by Section 23.3 Limitation of operation.

For the purposes of Section 23, the term "injured" is defined as bodily damage requiring immediate ~~medical attention~~ transport to a third-party medical facility.



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(b) Any incident in which a passenger is injured falling or jumping from a chair which is outside of the load or unload zone.

For the purposes of this rule, the "load zone" is defined as the area from the "wait here" sign to a point where the "no ski closure" ends or in the event there are no ski closures, at a point where the vertical clearance of the lift line is greater than eight (8) feet. This is measured from the bottom of the chair seat of an open carrier to the terrain or snow surface.

For the purposes of this rule, the "unload zone" is defined is the area approaching the unload area where the vertical clearance is less than eight (8) feet. This is measured from the bottom of an open carrier to the terrain or snow surface.

(c) Any unintentional deropement of an aerial tramway regardless of whether or not the tramway is evacuated. This does not apply to Surface Lifts, Tows and Conveyors.

(d) Any unplanned evacuation other than by prime mover or auxiliary power unit, regardless of cause. This does not apply to Surface Lifts, Tows and Conveyors.

(e) Any fire involving tramway equipment or structures that poses a risk to passengers, operating personnel or the structural integrity of the tramway.

(f) Failure of any electrical or mechanical component which results in the loss of control of the tramway, unless the loss of control is a direct result of the malfunction of a single manual stop or speed control switch. Any of the following five (5) conditions is considered a loss of control:

- (1) tramway will not slow down when given the command to do so;
- (2) tramway will not stop when given the command to do so;
- (3) tramway accelerates faster than normal design acceleration;
- (4) tramway self starts or self accelerates without the command to do so;
- (5) tramway reverses direction unintentionally and without the command to do so.

(g) The failure of the following components or their primary connections are reportable:

Failure is defined as the inability of the listed components to continue to function as designed and continued operation would represent a hazard.

- (1) Terminal Structure;
- (2) Bullwheel;
- (3) Brake System Components;
- (4) Tower Structure;
- (5) Sheave, Axle or Sheave Assembly;
- (6) Carrier;



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- (7) Grip;
- (8) Haul, Track or Counterweight Cable.

### 23.2 Reporting to the board.

(a) All reportable passenger tramway incidents involving a fatality or injury as defined in Section 23.1 (a), shall be orally reported to a Board member or the authority appointed by the Board as soon as reasonably possible, but in all events within three (3) hours of the incident.

(b) All critical component failures requiring the closure of the passenger tramway for more than one hour shall be orally reported to a Board member or the authority appointed by the Board as soon as reasonably possible, but in all events within twenty-four (24) hours of the incident becoming known to the area personnel. A written report shall be delivered to the Board on forms approved by the Board postmarked within five (5) days of such incident or postmarked within five (5) days after the incident becomes known to the area personnel.

(bc) A reportable incident (*other than 23.2(a)*) discovered on dates when the lift is not open to the public shall be orally reported to a Board member or the authority appointed by the Board as soon as reasonably possible, but no later than seventy-two (72) hours after such incident becomes known to the area personnel. A written report shall be delivered to the Board on forms approved by the Board or postmarked within fifteen (15) days following the verbal report. However, all oral reports must be made prior to reopening a lift.

Area personnel is defined as personnel involved with the operation, supervision, and maintenance of the tramway. This includes, but is not limited to, lift maintenance, lift operations, ski patrol and all supervisory staff.

**23.3 Limitation of operation.** ~~When a death or injury results from a possible malfunction of a passenger tramway, as defined in Section 23.1 (a), the owner or area personnel of the tramway shall immediately cease operation and notify the Supervisory Tramway Engineer or a member of the Board by telephone.~~ When a reportable tramway incident as defined in Section 23.1 (a) occurs, the owner or area personnel of the tramway shall immediately cease operation and notify the Supervisory Tramway Engineer or a member of the Board by telephone. No part of the tramway shall be removed or disturbed before permission has been given by a Board member, the Supervisory Tramway Engineer, or his designated representative, except to the extent that such action is necessary to avoid further death or serious injury.

~~An investigation of the occurrence shall then be initiated within 24 hours and shall precede any authorization to resume public operation of the tramway. The report of investigation shall include a factual account of the incident, the nature and extent of injuries to persons, damage to~~



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the passenger tramway, any witness statements, any other pertinent details, and recommendations for remedial measures to be taken prior to resuming operation. An investigation of the occurrence may be initiated at the discretion of the Supervisory Tramway Engineer in agreement with the Board chair and, if initiated, shall be initiated within twenty-four (24) hours and shall precede any authorization to resume public operation of the tramway. A summary report of such investigations may include, as appropriate to the circumstances as they are known at the time, a factual account of the incident, the nature and extent of injuries to persons, damage to the passenger tramway, pertinent observations of witnesses, any other pertinent details, and recommendations for remedial measures to be taken prior to resuming operating. Information that identifies witness names or details of injuries that would invade the privacy of the individuals involved in the incident shall not be included in summary reports. The Board shall review and approve summary reports before they are available to the public.

**23.4 Logs - components.** Area operators shall maintain a log in a format approved by the Board which shall contain reports of components replaced or repaired that do not meet the definitions of CPTSB section 23.1(g) and are not part of maintenance due to normal wear. These reports shall be submitted during public operation to the Board at monthly intervals not to exceed 60 days from the date of occurrence. When the lift is not open to the public, the Component Log shall be submitted on a monthly basis when routine maintenance is being performed.

This log shall be available for inspection and, if requested by the Board or its duly authorized representative, the area operator shall make copies available of the relevant records relating to any of the components.

**23.5 Logs – stoppages.** Area operators shall maintain a passenger tramway log which shall contain reports of all passenger tramway stoppages over ten (10) minutes. For each such stoppage, the log shall contain the following information:

- (a) name and/or number of the passenger tramway;
- (b) date of stoppage;
- (c) reason for stoppage;
- (d) description of any mechanical, structural, electrical, or other problem (if known);
- (e) under investigation (yes or no);
- (f) action taken, if any;
- (g) length of time the tramway was down.

This log shall be available for inspection and, if requested by the Board or its duly authorized representative, the area operator shall make copies available of the relevant records relating to any of the stoppages.



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**23.6 Logs - loading, unloading incidents and passengers falling or jumping from lifts.** Area operators shall maintain a log which shall contain reports of all loading and unloading incidents in which injury occurs. This log shall also contain any incident in which a passenger falls or jumps from a chair with no injury, of which the area personnel has knowledge, that is outside the load or unload zone. For the purposes of this rule, the "load zone" and "unload zone" is defined in 23.1(b).

For each such loading and unloading incident, the log shall contain the following information:

- (a) name and/or number of the passenger tramway;
- (b) date the incident occurred;
- (c) name, address and age of person injured;
- (d) description of the injury;
- (e) description of the incident;
- (f) under investigation (yes or no).

For each such fall or jumping incident, the log shall contain the following information:

- (a) name and/or number of the passenger tramway;
- (b) date the incident occurred;
- (c) age and gender of person involved, if known;
- (d) location of incident;
- (e) under investigation (yes or no).

This log shall be available for inspection and, if requested by the Board or its duly authorized representative, the area operator shall make copies available of the relevant records relating to any of the incidents.