

## Section 6 Tows

Note: Timeframes relate to the ropeway installation date or modification date whichever controls, unless otherwise noted.

### 6.1.1.3.3 Location of power lines.

*Jan. 1, 1977 to Present:*

Power lines shall be located a minimum distance equal to the height of poles or support structures from any passenger tramway so that poles and electrical lines cannot touch any portion of the tramway, loading or unloading points or platforms and tow path, if applicable, upon collapse of poles or lines, unless suitable and approved precautions are taken to safeguard human lives.

### 6.1.1.3.4 Air space requirements.

#### 6.1.1.3.4.1 Structures.

Note: Timeframes stated for this rule define the air space requirements for each ropeway at the time when the encroachment was known to the area and DO NOT pertain to the installation date of the ropeway.

*May 15, 2000 to Present:*

No passenger tramway installation shall be permitted to operate when a structure encroaches into the air space of the passenger tramway, defined as the area bounded by vertical planes commencing at a point thirty-five (35) feet from the intersection of the vertical planes of the ropes or cables and ground surface.

For purposes of this rule, buildings controlled by the licensee used primarily for maintenance and operation of the lift and other tramways shall not be considered structures; however, buildings must comply with the following.

- (1) No flammable liquids may be stored in the building outside of a UL listed container or storage cabinet, unless such flammable liquids are in the original containers and intended for daily usage. Quantities must be consistent with normal daily use. Class I or II flammable storage materials shall be limited to 2 gallons in a UL listed container and must be stored either in an outside storage area or in a UL listed cabinet.
- (2) The building must be within the view of the attendant but not impair the sight line of the lift.
- (3) Entrances to all machinery, operators', and attendants' rooms shall be locked when not in use. Unattended entrances accessible to public, which may be left open, shall be equipped with barriers to prevent entry.

*Jan. 1, 1994 to May 15, 2000:*

No passenger tramway installation shall be permitted to operate when a structure encroaches into the air space of the passenger tramway, defined as the area bounded by planes having an outward slope of one horizontal and two vertical and commencing at a point twenty (20) feet horizontally outside of the intersection of the vertical planes of ropes or cables and ground surface

*Dec. 30, 1977 to Jan. 1, 1994:*

No passenger tramway installation shall be permitted whenever the Passenger Tramway Operator does not have permanent and irrevocable control of the following air space (except when the passenger tramway is located on Forest Service land): the area bounded by planes having an outward slope of one horizontal and two vertical and commencing at a point twenty (20) feet horizontally outside of the intersection of the vertical planes of ropes or cables and ground surface

*Prior to Dec. 30, 1977:*  
Not required

#### **6.1.1.3.4.2 Cables or ropes.**

Note: Timeframes stated for this rule define the air space requirements for each ropeway at the time when the encroachment was known to the area and DO NOT pertain to the installation date of the ropeway.

*May 15, 2000 to Present:*

Any cable or rope installed on or near a ropeway that may represent a hazard to the ropeway shall be monitored to automatically stop the ropeway if the cable or rope fails. Failure would be defined as per Section 23.1 (g).

*EXCEPTION:* Track or haul ropes are excluded from this rule.

*Prior to May 15, 2000:*  
Not required

#### **6.2.1.1 Applicable codes.**

*May 15, 2000 to May 15, 2006:*

All electrical systems shall comply with 6.2.1.1 Applicable codes of the B77.1-1999 ANSI Standard.

*Jan. 1, 1994 to May 15, 2000:*

All electrical systems shall comply with 6.2.1.1 Applicable codes of the B77.1-1992 ANSI Standard.

*Nov. 1, 1991 to Jan 1, 1994:*

All electrical systems shall comply with 6.2.1.1 Applicable codes of the B77.1-1990 ANSI Standard.

*Jan. 1, 1984 to Nov 1, 1991:*

All electrical systems shall comply with 6.2.1.1 Applicable codes of the B77.1-1982 ANSI Standard.

*Jan 1, 1977 to Jan. 1, 1984:*

All electrical work shall comply with 6.2.1.1 Applicable codes of the B77.1-1976 ANSI Standard.

*Jan 1, 1974 to Jan. 1, 1977:*

All electrical work shall comply with 6.2.1.1 Applicable codes of the B77.1-1973 ANSI Standard.

*Jan 1, 1972 to Jan 1, 1974:*

All electrical work shall comply with 6.2.1.1 Applicable codes of the B77.1-1970 ANSI Standard.

*Prior to Jan 1, 1972:*

All electrical work shall comply with 6.2.1.1 Applicable codes of the B77.1-1960 ANSI Standard.

#### **6.2.1.2 Location.**

*May 15, 2000 to May 15, 2006:*

All electrical power transmission wiring located near or proposed to cross over aerial lifts shall comply with 6.2.1.2 Location of the B77.1-1999 ANSI Standard.

*Jan. 1, 1994 to May 15, 2000:*

All electrical power transmission wiring located near or proposed to cross over aerial lifts shall comply with 6.2.1.2 Location of the B77.1-1992 ANSI Standard.

*Nov. 1, 1991 to Jan 1, 1994:*

All electrical power transmission wiring located near or proposed to cross over aerial lifts shall comply with 6.2.1.2 Location of the B77.1-1990 ANSI Standard.

*Jan. 1, 1984 to Nov 1, 1991:*

All electrical power transmission wiring located near or proposed to cross over aerial lifts shall comply with 6.2.1.2 Location of the B77.1-1982 ANSI Standard.

*Prior to Jan. 1, 1984:*

All exposed electrical power transmission wiring shall be so located that in case of collapse or breakage of the power line it will not come into contact with carriers, ropes, or passengers.

#### **6.2.1.3 Protection.**

*Prior to May 15, 2006:*

All transformer stations and other high voltage electrical equipment shall be marked with conspicuous warning signs and shall be protected so as to prevent unauthorized persons from entering the area or coming in contact with any portion of the equipment or wiring. All power equipment shall be protected against overloads by circuit breakers or fuses.

#### **6.2.1.4 Overhead cables.**

*Prior to May 15, 2006:*

Signal, communication, and control circuits may be supported between towers that support the aerial lift. Voltage on overhead or exposed circuits shall be limited to 50 volts with the exception of the intermittent ring-down circuits for telephone systems.

#### **6.2.1.5.5 Ground fault interrupter protection.**

*Prior to May 15, 2006:*

Not required.

### **6.2.2 Electrical system circuit design and classification.**

*Prior to May 15, 2006:*

Not required.

#### **6.3.1.2.1 Requirement for signs.**

- (a) The design of any sign as well as its support and the installation procedure of each sign shall be considered a minor modification if the sign or aggregate of signs on a given tower is greater than three feet square (nine square feet).
- (b) Signs, fasteners, or supporting members shall not interfere with the operation of the tramway.
- (c) The design of structural components shall be reviewed to consider the increase in loading caused by any sign.
- (d) Signs shall not interfere with passenger or attendant vision.

**6.3.1.3 Operational plan for transportation of recreational equipment.** Each licensee shall have an operational plan that has procedures for transportation of sports equipment and recreational devices by foot passengers. This plan shall be consistent with the tramway manufacturer's specifications and instructions, if any.