



January 14, 2005

To: All Colorado Area Operators of Magic Carpet Ski Lifts
From: Dave Kelly
Subj: CPTSB Temporary Variance for Relief from Rule 8.1.2.11.2
Provisions for Automatic Stop Devices

Per the accompanying letter, the Colorado Passenger Tramway Safety Board has authorized the modification of conveyor lifts that will allow area operators to reduce the belt transition device opening to a maximum of 2.5 inches.

We have visited with Larry Smith in order to more precisely determine the nuances of the Board's language in the writing of this variance. With Larry's input, we offer both the following comments and suggested procedures for the area operators to follow to bring Magic Carpet Ski Lifts into compliance with the language of this variance. These comments only apply to our Boardwalk® series of lifts that do not use linear bearings for relief plate actuation. Users of these lifts who want to make this modification must update the relief plate mechanism to our more current design.

Please note, Magic Carpet Ski Lifts, Inc. is leaving the application of this variance up to the area operators as to whether or not the changes to the lifts outlined in these provisions are made. We will assist any area with compliance to these provisions, if requested. Also note that this temporary blanket variance expires on June 1, 2005 and that the language in this temporary variance differs from the language in the proposed language for the B-77, Section 7 ballot which is currently out for final comments.

In the provisions listed under 2 (a) thru (k) of the CPTSB Memorandum, we have the following information for modifying Magic Carpet Ski Lifts per the variance.

2a. The distance of travel measurement is to be 2.5", measured at the transition moving plate edge from the operating position to the retracted position. Inspectors will be advised that this is the way the plate is to be measured for travel.

Open the relief plate up to the amount of maximum travel that the area operator desires, not exceeding 2.5 inches of travel. Measure the compressed length of the relief plate spring and cut a piece of tubing to that length. The tubing should have a minimum ID of 1.625". Place this tubing over the spring so that the tube acts as a physical stop for relief plate movement. Make sure that any washers or the spring itself will not bind in the tube.

2b. *Currently, we use a bolt thru a clevis on the end of the relief plate spring rod. Removal of this bolt will allow for the plate to relieve pressure on an entangled object. If the area operator desires a faster method of relieving the pressure, a clevis pin can be substituted in place of the bolt, with a hairpin style cotter pin. Operational procedure will be to disconnect power from the lift before relieving the pressure on the relief plate in this manner.*

2c. *Inspectors will be advised that this will be interpreted as 0.25 inches (6.3 mm), or less.*

2d. *Areas will have to set the limit switch(s) to this tolerance level. The B-77 ballot is proposing a 15 mm distance for this measurement.*

2e. *Areas should measure the stopping distance they currently have on their lifts running at operational speed under no load. If the distance is more than 12 inches (304 mm), the lift will need to be either slowed down so that the 12 inch stopping distance is met, or a dynamic braking resistor with overload protection will need to be installed. A delay off timer, installed in many of our lifts but not used, will need to be engaged in the stop circuitry.*

2f. *Areas will have to calculate this stopping distance, based upon the speed of the lift. If the lift stops too quickly, a delay off timer, installed in many of our lifts but not used, will need to be engaged in the stop circuitry.*

2g. *We meet this provision.*

2h. *Some lifts, without provisions for a manual reset of the electrical circuit, will need either a momentary contact pushbutton or three position key switch added for a reset circuit. Returning the relief plate back into the operating position is no longer considered a manual reset.*

2i. *We meet this provision. Our transition stop devices use the e-stop circuit for relief plate monitoring.*

2j. *Either paint or yellow tape will meet this provision. We can offer a plastic laminated plate to Area operators who desire one.*

2k. *Area operators shall enforce compliance with this provision.*