

# STATE OF NEW HAMPSHIRE



## *Passenger Tramway Safety Board*



Office: c/o N.H. State Fire Marshal's Office  
110 Smokey Bear Blvd., Concord, NH  
Mailing Address: 33 Hazen Drive, Concord, NH 03305  
603-223-4289, FAX 603-223-4294

Selden Hannah  
Chairman

Mark Petrozzi  
Member

Robert Hoyt  
Member

Stanley Judge  
Member

## **8-17-2016 NEW HAMPSHIRE PASSENGER TRAMWAY SAFETY BOARD MEETING MINUTES**

### **Present:**

**Members:** Selden Hannah  
Robert Hoyt  
Stanley Judge  
Mark Petrozzi

**Industry:** John Fichera Black Mountain  
Brian Heon Attitash/Wildcat  
Gerd Riess Whaleback  
Peter Kavanaugh Star Lifts USA  
Beth Lapointe Skytrac Lifts  
Ted Sutton Mittersill

**AHJ** John Burpee State of Maine  
Stanley Quinn State of Maine  
Mike Nellis State of Vermont  
Scott Woolfenden NH DOS  
Nancy Ettelson NH DOS  
Briggs Lockwood NH DOS  
Chris Hanrahan US Forest Service

Selden called the meeting to order at 9:06.

The Board reviewed the minutes of the 7-13-2016 meeting.

Motion to accept: Stan Judge

Second: Bob Hoyt

Approved unanimously.

# STATE OF NEW HAMPSHIRE



## *Passenger Tramway Safety Board*



Office: c/o N.H. State Fire Marshal's Office  
110 Smokey Bear Blvd., Concord, NH  
Mailing Address: 33 Hazen Drive, Concord, NH 03305  
603-223-4289, FAX 603-223-4294

**Briggs introduced Scott Woolfenden to the meeting; Scott has been hired as a part-time inspector.**

**The Board reviewed the additional submittals for the Mittersill T-Bar.**

**Selden pointed out that the sheave assemblies pivot longitudinally. Selden asked about the combination sheave units. It was determined that there is an adjustment that maintains proper rope load on both the upper and lower sheaves.**

**Mark asked about the possibility of skiers crossing the lift line. Ted Sutton explained that there are no plans to cross the lift line.**

**Selden asked about translation of the plans. Ted suggested that some of the descriptions have been translated and Skytrak feels that it is sufficient.**

**Stan pointed out that that there might be an important note on a plan that is in a foreign language and that it would be good to have that in English.**

**Selden asked about the required bolt torque on the bullwheel bolts, on the last page of the submittal; the correct torque does not appear to be listed.**

**Briggs asked about bullwheel retention, as there does not appear to be any. Ted explained that LST engineers are working on a design to be added. The Board talked about the certifying statement for the lift. Mark asked if the Board would receive a certifying letter that includes the bullwheel retention. The Board explained that the letter should refer to the NH rules, and not the B. 77.1 Standard.**

**Selden pointed out that the as-builts are required to be in English and in English units. Ted clarified that he understands that the applicant is being told to provide translation of the German text in the plans.**

**Motion by Mark: Conditional approval for construction, conditions as follows:**

- 1. As-builts to be in the English language and in English units.**
- 2. Bullwheel retention required to the approval of the Board**
- 3. Certification to refer to NH Administrative rules.**

**Second by Bob Hoyt.**

**Approved unanimously.**

**The Board reviewed an application for construction from Whaleback to re-locate a wire rope tow. This is not being submitted as pre-approved. Briggs clarified that the tow will not be used for tubing, only for skiers.**

**There was some discussion about the rope height, and how to meet the required vertical clearances through the stop gate area. The Board agreed that this clearance can be verified in the field. Bullwheel retention was discussed; bullwheel retention is not required, but haul rope retention is. This was identified on the plans.**

**Motion by Mark: Approve the application for the relocation of the tow to the learning area subject to receipt of a drawing list that is stamped and signed by the design engineer, and**

# STATE OF NEW HAMPSHIRE



## *Passenger Tramway Safety Board*



Office: c/o N.H. State Fire Marshal's Office  
110 Smokey Bear Blvd., Concord, NH  
Mailing Address: 33 Hazen Drive, Concord, NH 03305  
603-223-4289, FAX 603-223-4294

that the design engineer verify that the vertical clearances beyond the stop gate are compliant.

Second: Stan

Approved unanimously.

Gerd Reiss from Whaleback handed out the Application for Construction form for a relocated T-bar, and explained that they do not have the engineering or equipment drawings yet. The Board indicated that the other submittals would need to accompany the application.

Selden asked about the age and condition of the lift. Gerd indicated that the lift is 50 years old, but it has had good maintenance and the towing units are in good shape.

No action taken.

The Board reviewed requests from Black Mountain for a waiver from conducting the 7-year dynamic test, and from the NDT and clip relocation for this year on the Mueller/Riblet double chairlift. The lift ran fewer than eight days last winter.

Selden asked if the manufacturer was consulted. John indicated that he spoke with Frank Judge of Superior Tramways, and he agreed that it would not be necessary.

Bob indicated that he remembered this type of issue coming up in the past and the requests had been granted and that he had no problem with putting this off for one year.

Stan suggested that the clip issue is certainly legitimate, as the operators know the history of the clips and ropes, and the lift is not unusually short. Stan indicated that he is unsure that the Board has the authority to grant a 'waiver', but can allow an exception as described in the B. 77.1 in section 1.2.4. Reference to this section would provide a rationale for the exception.

Motion by Mark: To grant the requests to postpone the dynamic testing and the NDT based on 1.2.4 until the 2017-2018 season, conditional upon receipt of chair bail manufacturer's consent.

Second: Bob.

Approved unanimously.

The Board discussed terminal anchoring. Briggs explained how the New Hampshire inspectors have reviewed the lift designs for New Hampshire lifts and have created a 'short list' of lifts for which the designs have not been identified. Further, Briggs explained that one terminal that has a foundation design identical to the one that failed in Maine has been identified at Highland Mountain Bike Park in Northfield. It has been reviewed by a qualified engineer, and additional anchoring has been added. This was expedited due to the fact that the lift is currently in use.

John Burpee from Maine explained how their investigation has proceeded. Maine will attempt to verify all pinned terminals. The obvious problem is what to do with existing lifts, as there is no way to verify grout.

John explained that the Sunday River lift terminal had a factor of .7 for overturning with concrete alone, and that the grouted pins were there to provide the required factor of 2. The

# STATE OF NEW HAMPSHIRE



## *Passenger Tramway Safety Board*



Office: c/o N.H. State Fire Marshal's Office  
110 Smokey Bear Blvd., Concord, NH  
Mailing Address: 33 Hazen Drive, Concord, NH 03305  
603-223-4289, FAX 603-223-4294

grout has been analyzed and identified as Por Rok grout, water soluble. The initial finding in

the investigation of the overturning is failure of the grout.

Mike Nellis explained what they are doing in Vermont. Suicide Six Ski Area removed an older Borvig and the top terminal foundation was excavated and examined; this was a gravity foundation and not a pinned foundation. The top tower was pinned, and looked ok. Mike explained that Vermont has required mechanical anchors, probably as a result of the 1990 foundation failure at Gunstock.

Selden pointed out that the failures to date have been with water-soluble grout. Selden suggested that we need to focus on the design, and need to identify the grout.

The Board agreed to this policy regarding pinned foundations:

1. Identify pinned foundations, including terminals and towers. Also identify those with mechanical anchors.
2. Identify the grout used.
3. Any pinned foundation where the grout has not been properly identified will need to be assessed by a qualified engineer and verified; if modifications are required, a qualified engineer needs to design the modification.
4. The New Hampshire Passenger Tramway Safety Board will continue to review relevant information that becomes available from neighboring states.
5. This verification will be required prior to further operation of the affected lifts.

The Board agreed to have the NH DOS attorney review this policy to see if it will be necessary to create an emergency rule.

The Board reviewed the approved rule regarding NDT for orphan chairlift carriers.

Motion to approve: Bob.

Second: Stan.

Approved unanimously.

Chris Hanrahan said that, in Colorado, a Riblet chairlift tower was found to have seven broken studs. He pointed out that it has been a number of years since the first notice went out for Riblet users to inspect their tower studs, and that he thinks that recommendation was to do the inspection every seven years. There was more discussion.

No action taken.

The Board set the date for the next meeting for Thursday, September 15, at 9:00 AM, here at 110 Smokey Bear Boulevard.

# STATE OF NEW HAMPSHIRE



## *Passenger Tramway Safety Board*

Office: c/o N.H. State Fire Marshal's Office  
110 Smokey Bear Blvd., Concord, NH  
Mailing Address: 33 Hazen Drive, Concord, NH 03305  
603-223-4289, FAX 603-223-4294



**Motion to adjourn by Mark.  
Second by Bob.  
Approved unanimously.**

**Respectfully Submitted**

**W. Briggs Lockwood  
Chief, Tramway and Amusement Ride Safety  
NH Department of Safety**