

Incident Summary (Reference #5620327) (Final)

SUPPORTING INFORMATION	Incident Date	August 20, 2017	
	Location	District of North Vancouver	
	Regulated industry sector	Amusement devices, Zipline	
	Impact	Qty injuries	1
		Injury description	Tibia fracture
		Injury rating	Moderate
	Damage	Damage description	None
		Damage rating	NA
	Incident rating	Moderate	
Incident overview	Zipline rider collided with guide in the landing area.		
INVESTIGATION CONCLUSIONS	Site, system and components	<ul style="list-style-type: none"> • 2 parallel ziplines ropes approximately 90 m long. • Previous inspection records indicate an average rider speed of 10.9 m/s. • Brakes at landing consist of a configuration of helical springs with no trolley capturing mechanism and no spring recoil holding feature (part of the ride experience is that the rider's trolley engages the springs and then is recoiled back out of the landing area). • The riders are instructed by the zipline guides to assume a "braking position"(knees up both hands on the trolley handle) as they approach the landing area. Signage at the launch area illustrates this, "braking position". 	
	Failure scenario(s)	2 zipline riders, each riding on adjacent parallel ziplines ropes, approached the landing area holding hands. A staff member (zipline guide)at the landing area that was standing between the zipline ropes, fearing being clotheslined, and attempted to dodge the approaching riders. One of the rider's leg made hard contact with the guide as the guide moved to the side.	
	Facts and evidence	<ul style="list-style-type: none"> • The zipline riders were given a demonstration and provided with instruction as to the "brake position" (both hands on the trolley bar and knees up) prior to the start of the tour. The guide also provided further instruction, that as the riders approach the landing, the guide will call for the riders to assume the brake position by calling out, "hands on the bar, knees up". • At the first zipline (rider's proceed through multiple ziplines as part of the zipline tour) the guide observed that all riders performed the brake position maneuver correctly indicating that there was no misunderstandings or language barriers. • Riders proceeded through to the next zipline and rider again performed the brake position correctly. • At the 3rd zipline the guide indicated to the riders that riders were permitted to lean across between the 2 lines and hold hands. • The riders were holding hands as they traveled down the zipline. As they approached the landing the guide called for them to assume the brake position ("hands on bar knees up") on 2 occasions. The riders continued to hold hands 	

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	<i>(after making hard contact with the guide) and as they were recoiled back out of the landing area.</i>
Causes and contributing factors	<i>It is highly probable that the riders did not follow the zipline guide's instructions and signage instructions.</i>

Photo of Signage at Launch Area

