NAFLIC

National Association For Leisure Industry Certification

Standards & Related Documents Committee

TECHNICAL BULLETIN — July 2014

381. Technical Park Reverse Bungee

The primary mitigation for hazards associated with a premature launch on a reverse bungee should be procedural in that passengers should be secured while bungees are slack and then no staff or persons should be in or around the ride gondola during tensioning of the bungees. However, the Technical Park Bungee has an additional feature which is the subject of the bulletin below.

Please take note of the following incident report brought to our attention by the HSE.

A potentially dangerous incident occurred involving a Technical Park reverse bungee when the passenger unit was unintentionally launched following failure of the generator power to the ride. Operation of the emergency stop would also have resulted in an immediate launch of the passenger unit.

On loss of power or operation of the emergency stop the ride should be held in position for approximately 15 minutes by the backup battery system. As the batteries discharge to 80% of full charge an audible alarm should sound. The passenger unit should not be able to launch unintentionally in this circumstance.

Investigation suggests that the incident was the result of changes to the device's wiring since manufacture allied with life-expired batteries. The battery backup monitoring circuit had been removed, disabling the audible alarm designed to notify the operator when the back up battery capacity fell below a safe level.

The capacity (Ah) and health of the batteries are fundamental safety features of the ride as they provide control of the device in the case of main power failure or use of the emergency stop control.

Controllers should check that the control system wiring of this type of device and the battery capacities are consistent with those in the Operation and Maintenance Manual supplied with the device. If any changes to the wiring have been made, the controller is responsible for informing the IB.

Regular tests should be conducted as follows with the main power disconnected:

- *Devices should be tested annually to ensure the magnet will anchor the passenger unit in place for the length of time stated in the Operations and Maintenance Manual (normally 15 minutes). This test must establish that the warning alarm sounds.*

- *A daily test to ensure the magnet can anchor the passenger unit in place for 5 minutes.*

A procedure should be developed by the controller to determine what the operator should do in a situation where the tension in the bungee ropes cannot be released or if the battery back up audible alarm sounds within the 15 minutes during which the batteries should hold the ride in place.