

Ngong Ping 360

Cause of Suspension of Service on 11 April 2008

The Incident

The Ngong Ping 360 ropeway service was suspended for 1 hour 28 minutes on 11 April 2008. The operating company has completed their investigation and submitted their investigation report to EMSD. The cause of the incident together with the remedial actions are given in the following paragraphs.

Nei Lak Shan Angle Station

The route of the Ngong Ping 360 ropeway has two angle stations, namely Airport Island Angle Station, and Nei Lak Shan Angle Station. The route of the Ngong Ping 360 ropeway and the locations of the angle stations are given in Figure A.



Figure A Plan view of Ngong Ping ropeway

Findings

The fault diagnosis conducted by the operating company revealed that a set of driving belts at one of the belt/pulley assemblies at Nei Lak Shan Angle Station dislodged from their normal position, resulting in incorrect cabin separation within the angle station.

During normal operation, Nei Lak Shan Angle Station only has a small team of operators carrying out operation of the system. The repair work of the belt/pulley assemblies required experienced members of the maintenance team to be deployed from the Tung Chung Terminal. As Nei Lak Shan is quite remote from Tung Chung and there is only foot path leading to the angle station, the repair work at the angle station therefore took longer time than usual.

Immediate Actions Taken

The maintenance team of the operating company conducted corrective actions, included replacing the affected pulley, tightening the belts of the affected belt/pulley assembly to provide proper tension and fine-adjusting the assembly to reduce the tendency of belt dislodgement. The cable car system was closed around 2:30 pm the same day for further inspection.

EMSD deployed professional staff to monitor closely at the site the checking of all belt/pulley assemblies performed by the operating company at the night shift of 11 April 2008. After the cable car was put into trial run in the early morning of 12 April 2008, all the assemblies were further checked by professional staff of EMSD. The cable car service resumed normal on 12 April 2008 after the assemblies were confirmed in proper working conditions.

System Safety

The dislodgement of the belts from the belt/pulley assembly has affected the system reliability of the ropeway. The safety of the system has not been jeopardized.

Further Actions

Actions taken by the operating company to prevent recurrence of similar incident include :-

- a) installing additional tensioners to all similar belt/pulley assemblies in Nei Lak Shan Angle Station to maintain the belt tension (to be completed by mid-May 2008);
- b) deploying experienced maintenance staff at the Nei Lak Shan Angle Station to deal with emergency repair of similar nature (implemented), and
- c) strengthening the regular checking of similar non-linear belt/pulley assemblies in the cable car system (implemented).

EMSD

May 2008