For information

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Legislative Council Panel on Transport
Subcommittee on matters relating to railways

MTR incidents involving train doors/platform screen doors not opening

Purpose

This paper provides the Government's assessment of the two MTR incidents that happened on 29 June and 6 July 2005, in which train doors and platform screen doors (PSDs) were not opened for boarding and alighting of passengers at Admiralty station and Hang Hau station respectively. The results of the investigation into these incidents and the follow up actions taken by MTR Corporation Limited (MTRCL) are set out at *Annex*.

Government's assessment

2. The Government is very concerned about these two incidents. Upon receiving from MTRCL notification of the incidents, we requested MTRCL to look into the causes and submit reports as soon as possible. The Hong Kong Railway Inspectorate (HKRI) carried out investigations, including reviewing the computer log of the incident trains, the CCTV recordings of the incident platform and the competence of the train operators concerned.

3. The assessment of the HKRI is that the incident on 29 June 2005 at Admiralty station was caused by the train operator's failure in following properly the operational procedures and was a result of human error. According to HKRI's investigation on the computer log, the incident train, which was operating under Automatic Train Operation (ATO), was stopped short of the correct position when calling at the platform of Admiralty station. Because of that, the train doors and PSDs did not open in accordance with the safety design of the signalling system. Under such circumstances, the train operator should have followed properly the operational procedures and driven the train manually to the proper stopping mark and opened the train doors together with the PSDs by pushing the door open button in the driving cabinet. However, HKRI's investigation revealed that the train operator concerned did

not realize that the train was stopped short. Also, he did not notice that the door operation indicating light in the driving cabinet, which would light up to indicate door opening, remained dim. As a consequence, he did not follow the operational procedures to drive the train to the proper position and open the train doors/PSDs manually.

4. As regards the other incident on 6 July 2005 at Hang Hau station, HKRI's assessment is that it was caused by a technical fault, which hindered the normal operation of PSDs, and by human error. The incident train operating under ATO was stopped properly at the platform of Hang Hau station. Under normal operation, the train doors and PSDs would have opened automatically in a synchronized manner. However, due to an intermittent equipment failure of the interfacing unit between the incident train and PSDs, the PSDs did not open automatically in conjunction with the train doors. In such cases, the train operator, which is responsible for observing the platform activities and the operation of PSDs through a CCTV in the driving cabinet, should have arranged to open the PSDs manually. However HKRI's investigation revealed that the train operator concerned failed to follow the platform duty procedures properly and did not realize that the PSDs did not open.

5. The train operators involved in the said incidents did not have a poor driving record and were considered fit for work by their respective supervisors on the day of the incident. These incidents caused inconvenience to passengers. However, they did not involve any systemic failures in the operation and maintenance of train doors and PSDs. There were no passenger safety implication.

Improvement measures taken by MTRCL

6. With a view to preventing recurrence of similar incidents, the Government has suggested to MTRCL that it should further enhance train operators' vigilance in monitoring the operation of train doors and PSDs and explore how Platform Assistants and staff stationed in Platform Supervision Booths could help observe the operation of train doors and PSDs for alerting the train operators as appropriate.

7. In response to our suggestions, the Corporation has conducted a series of briefings to remind its train staff and platform staff to be more vigilant. Platform Assistants have also been encouraged to operate the platform emergency plunger to prevent the train from departing the station should they observe similar irregularities in future.

8. For the said incidents, the train operators concerned were immediately taken off from normal duty following the incidents for counselling, and additional coaching and training. The Corporation has also commissioned an external human factor consultant to review these incidents and recommend specific improvement measures with a view to minimizing staff errors that may affect the performance of the railway. The findings of the review will be available in late August 2005. The Government considers that these measures are in the right direction and could help prevent recurrence of similar incidents.

Environment, Transport and Works Bureau
August 2005

Legislative Council Panel on Transport
Subcommittee on matters relating to railways

Information on
Incidents at Admiralty and Hang Hau Stations

Purpose

This paper is to provide information on two incidents as requested by the LegCo Transport Panel's Subcommittee on Matters Relating to Railways.

Incident at Admiralty Station on 29 June 2005

2. At 0953 hours on 29 June 2005, a Sheung Wan (SHW) bound Island Line train did not have its doors opened for passenger movements after it had stopped at Admiralty (ADM) Station. Afterwards the train continued its journey to Central (CEN) Station. At 1000 hours, 8 verbal reports from passengers were received at CEN and ADM Stations. About 200 passengers who intended to alight at Admiralty were affected by delays of a few minutes in their journey.

Investigation and Findings

3. Subsequent investigation confirmed that the train was operating on automatic mode but had marginally stopped short of the correct position. As part of the safety design, the train doors and Platform Screen Doors (PSDs) will not open if the signaling equipment detects that the train has not stopped at the proper position and the train doors do not align with the PSDs.

4. Under standard operating procedures, the train operator should have driven the train up to the proper stopping mark and then opened the doors. In this case, the train operator admitted he had not followed the proper procedures.

5. Subsequent examinations of the train in the Depot showed that the train was in correct working condition with its trainborne Automatic Train Protection

and Automatic Train Operation systems functioning normally. The incident did not have any safety implications and was a result of human action.

Incident at Hang Hau Station on 6 July 2005

6. At about 1815 hours on 6 July 2005, a Po Lam (POA) bound Tseung Kwan O Line train stopped at Hang Hau Station (HAH) in a normal manner. Its train doors were opened automatically, but the PSD did not open. The train operator was not aware of this situation and he proceeded to close the train doors and drove the train to Po Lam Station (POA).

7. About 50 passengers affected in this incident experienced a few minutes delay for travelling back from POA to HAH.

Investigation and Findings

8. Results of investigations revealed that there was an intermittent fault at one of the electronic cards inside the signalling wayside control unit, which failed to transmit a command signal to the PSD control equipment. As a result, the PSD did not open automatically. The defective electronic card was replaced subsequently.

9. Under the standard operating procedures, the train operator must check the status of the PSD and monitor the passenger movements through the CCTV monitor in the driving cabin. In the event that the PSD does not open, the train operator should manually open the PSD by the Local Control Panel at platform for passenger movements.

10. The train operator concerned admitted that in this incident when the train doors had stopped at HAH, he had not fully followed the prescribed procedures.

11. The incident did not have any safety implications, and was the result of an intermittent technical fault combined with the elements of human error.

Actions for Further Improvement

12. In both cases, the train operators were promptly taken off from their normal duty. They were counselled and were given additional coaching and training.

13. The lessons learnt from the incidents were shared amongst other train operating staff. A series of briefing was conducted subsequently in which every member of train staff was reminded by his supervisor of his duty requirements, especially at station platforms, before they started work. The Corporation has also commissioned an external professional to review incidents of human factor nature to seek ways for improvement.

14. The Corporation views the matters seriously and will continue to strengthen training to seek to enhance and improve the alertness of train operators with a view to providing a high level of reliable train service.

MTR Corporation Limited
August 2005