Legislative Council Panel on Transport
Subcommittee on Matters Relating to Railways

Follow up action on MTR Kwun Tong Line
Overhead Power System Failure on 8 December 2008

Purpose

Following the special meeting of the Subcommittee on Matters Relating to Railways (Subcommittee) on 16 December 2008 which discussed Kwun Tong Line Overhead Power System failure on 8 December 2008, this paper provides information on follow up actions carried out by MTR Corporation Limited. It also provides the supplementary information requested by Members at the meeting.

Kwun Tong Line Overhead Power System Failure on 8 December 2008

2. The Corporation fully understands Members' concerns over the effectiveness of various contingency measures in times of incident and places high importance on this area of work. The Corporation has contingency plans in place in the event of train service delays and serious disruptions. In the course of this incident, relevant procedures had been applied in implementing measures on service recovery, information dissemination, emergency buses deployment and fare refund arrangement.

3. To seek continuous improvement, the Corporation has identified a range of improvement measures to further reduce passenger inconvenience at times of service disruption.

Incident handling and dissemination of Information

4. In the event of service disruption in the future, the Corporation will implement the following measures with a view to providing more updated information to the public so that they could plan their journeys ahead more effectively:

(a) inform passengers of the incident in a timely manner and advise them that they may consider taking other modes of transport not later than 20 minutes after the outbreak of the incident if it is assessed that the service disruption cannot be recovered in the next 20 minutes;

(b) enhance public announcement on trains and at stations especially at interchange stations. System wide broadcast at stations will be made during major incidents such as suspension of service. Station announcement will be made for service delay on the affected line and also the line(s) that interchange with the affected line. Announcement will be made on the trains running on the affected line and on trains running on line(s) that will interchange with the affected line when they are approaching the interchange stations;

(c) enhance the dissemination of information through Electronic Information Display System, Passenger Information Display System and station notices; and

(d) review the current manpower back-up plan to provide additional staff support in incident handling.

5. The Corporation has standing procedures to deal with emergency and non-emergency detrainment of passengers. After review, the Corporation has decided to adopt further measures with a specific timeframe to minimize the delays and discomfort caused to passengers whilst ensuring their safety. The Corporation will make a decision on the need for detrainment about 20 minutes after the outbreak of the incident if a train is stalled in-between stations. Passengers on board the train would be kept informed of arrangements accordingly either through the central Public Announcement (PA) or the train captain.

Emergency Bus Deployment

6. An emergency bus deployment mechanism, formulated in

conjunction with the Transport Department, is currently in place. The scale of emergency bus deployments varies according to the seriousness of the incident.

7. On 8 December 2008, it was initially believed that the fault and subsequent delay was caused by a train failure and it could be rectified quickly. Once the fault in the overhead line was detected and service was suspended, emergency buses were mobilized immediately. The Corporation has reviewed with the Transport Department the routing of emergency buses serving the incident stations on 8 December 2008 which will be shortened to enhance efficiency.

8. To enhance service to passengers in case of service suspension, in future the Corporation will make arrangements for emergency buses to be on standby when Red Alert[1] is issued. As soon as service suspension is confirmed, full call out of emergency buses will be arranged.

Maintenance Enhancements

9. The Corporation has conducted a thorough check on similar isolators in the system and found all of them to be in the correct position. It has introduced a new checking procedure and labeling system to minimize the risk of human error and ensure all isolators are in the correct position twice a week. The lessons learned from this incident are being included in the standard refresher training. The Corporation has also reviewed the feasibility of installing remote sensing facilities at critical locations to monitor the status of isolators and is now designing such monitoring devices.

10. In order to avoid service disruptions caused by faults of similar nature, we have reviewed designs of major equipment and records of long delays (20 minutes or more). The review has confirmed that only the power supply system and the overhead line system could have such faults. Accordingly, all such equipment has been checked and confirmed to be in good working order. MTRCL will also enhance the

[1] A "red alert" will be issued by railway corporations as a signal to public to indicate that a serious disruption has continued or is expected to continue for over 20 minutes, and emergency transport support services from other transport operators are required.

checking of these equipment. Other equipments critical for operation including the trains and signaling system are subject to pre-service checks every day or continuous monitoring by the Operations Control Centre or stations.

Outsourcing of Maintenance Activities

11. Outsourcing of maintenance activities is common among railway operations internationally. Outsourcing is beneficial when the contractor has specialized expertise and performs the same and similar processes for multiple customers.

12. Since MTR commenced service in 1979, the Corporation has put in place a detailed monitoring system to ensure its maintenance works, including the outsourced maintenance works, meet the standard it adopts. In fact, the Corporation applies the same standards and requirements to maintenance tasks carried out by MTR in-house staff or contractors. The standard MTR adopts for all outsourcing is in line with international practices. MTR engineers are responsible for monitoring and supervising work quality to ensure they comply with MTR standards. Contractor staff are required to possess the same qualifications and must be certified to ensure they are equipped with the adequate skills and techniques in maintaining MTR trains and systems.

13. Outsourced maintenance work is subject to the same standards of work and performance and regular checks as MTR in-house maintenance works. There are also regular monitoring of daily/weekly and monthly performance reviews and annual asset surveys and three-yearly asset condition assessment. On top of the above, outsourced maintenance work are subject to additional scheduled and random inspections and checks by MTR full-time staff.

14. In the MTR system, cleaning services, maintenance works for station lifts and escalators, platform screen doors, fire services equipment, telecommunication equipment, gondola and gantries, building service equipment, infrastructure equipment (track, signaling, power distribution and overhead line) in Tseung Kwan O extension and

the trains in Tseung Kwan O extension are outsourced to competent contractors.

15. Service quality on the Tseung Kwan O Line is similar to the other urban lines (Kwun Tong, Tsuen Wan and Island Lines) of the MTR system as shown in Annex 1.

16. The Corporation always seeks ways and means to improve cost efficiency and outsourcing is one of the options and has been in place since the commencement of operation, e.g. outsourcing lifts and escalator maintenance. However, in making any decision on outsourcing, operational safety, reliability, service quality and implications to staff will be taken into account. In future, the Corporation may consider outsourcing in line with these principles when opportunities arise.

Maintenance and Asset Management

17. Despite the outsourcing of certain maintenance activities, the safety and quality of maintenance service is never compromised. To maintain the high standard of maintenance works, an asset management system is in place. The Corporation has adopted an internationally recognized benchmark on asset management, PAS55-1 (Publicly Available Specification), to maintain the high standard and quality of its asset. The PAS55-1 specification sets out the requirements for a system to manage physical infrastructure assets. The Corporation has obtained accreditation that their asset management complies with PAS55-1 standard.

Working hours in London and New York metros

18. Available information shows that London Underground's maintenance staff and train crews work between 35 and 48 hours a week while those at New York Subway work 40 hours a week. MTR maintenance staff and train crew work 42 hours a week.

Conclusion

19. The Corporation is committed to operating a safe, reliable and efficient mass transit service and is determined to continue providing the people of Hong Kong with one of the world's best metro railroad networks. It will continue to improve its service with available railway management technology and engineering development.

MTR Corporation
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Annex 1

Performance of Tseung Kwan O Line (both Train Maintenance and Infrastructure Maintenance is outsourced) with reference to Performance of the Urban Lines

Train Service Delivery	2006	2007	2008 (up to Nov)
Urban Lines[1]	99.9%	99.9%	99.9%
Tseung Kwan O Line[2]	99.9%	99.9%	99.9%

Train Punctuality	2006	2007	2008 (up to Nov)
Urban Lines[1]	99.7%	99.7%	99.7%
Tseung Kwan O Line[2]	99.9%	99.9%	99.9%

(1) Urban Lines are Tsuen Wan Line, Kwun Tong Line, Island Line and Tseung Kwan O Line.

(2) Both train maintenance and infrastructure maintenance is outsourced for Tseung Kwan O Line.