

**Legislative Council Panel on Transport  
Subcommittee on Matters Related to Railways**

**Railway Safety**

**Purpose**

This paper provides information requested by Members at the meeting of the Subcommittee on Matters Related to Railways (the Subcommittee) on 26 March 2010 relating to the monitoring of railway safety, railway incidents, and arrangements between MTR Corporation Limited (MTRCL) and its contractors.

**Monitoring of railway safety**

2. The Government attaches a great deal of importance to the monitoring of railway safety. The Transport and Housing Bureau is responsible for overseeing the overall policy on railway safety and regulation of railway services. In 1990, the Hong Kong Railway Inspectorate (HKRI) was established to oversee the safe operation of railways by investigating into railway incidents, ensuring the adoption of appropriate safety practices by the railway corporations, assessing and approving new railways and major modifications, and assessing and following up the railway corporations' improvement measures.

3. In the light of the increasing number of new railway projects, the advancement in railway technology, the changes brought about by the merger of the Mass Transit Railway (MTR) and Kowloon-Canton Railway (KCR) systems, and increasing public expectation on continuous improvement in railway safety, we reviewed the role and functions of the HKRI in 2007 with a view to further enhancing the monitoring of railway safety by taking into account overseas experience and practices.

4. The review concluded that the manpower of the HKRI should be upgraded and enhanced and that the HKRI should be integrated into the Electrical and Mechanical Services Department (EMSD). As such, we proposed to strengthen the professional manpower of HKRI by upgrading its head from a Chief Electrical and Mechanical Engineer (CEME)(D1) to a Government Electrical and Mechanical Engineer (GEME)(D2) and creating two non-directorate engineering posts; and to integrate HKRI into EMSD. The proposal was aimed at further enhancing our regulatory functions by adopting more measures for monitoring of railway safety, steering the railway corporation to enhance adoption of safety preventive measures, ensuring the railway corporation adopts best international safety practices and assessing and approving new railway projects to facilitate safe and timely implementation.

5. The integration of HKRI into EMSD was considered the most appropriate arrangement given the relevance of electrical and mechanical engineering in railway engineering systems such as signalling, trains and power supply. Indeed, EMSD had all along been providing technical support and advice when major railway incidents occur. Integration into EMSD meant that there would be more flexibility in deploying relevant expertise and resources for the purpose of overseeing railway safety. It would also facilitate the nurturing of expertise and experience and the rendering of in-house professional support to the team. After integration, the team continued to comprise professional staff from various engineering disciplines including civil engineering, electrical and mechanical engineering and electronics.

6. The above was discussed at the Panel on Transport in November 2007 and Members generally supported the proposal. The proposal was then approved by the Establishment Subcommittee of the Finance Committee and the Finance Committee in December 2007 and January 2008 respectively. After integration into EMSD in February 2008, the team was renamed as the Railways Branch. The Chief Inspector of Railways (the D1 post) was retitled as the Assistant Director/Railways (the D2 post).

7. While EMSD is responsible for monitoring railway safety, the Transport Department (TD) is responsible for monitoring railway services. In this regard, MTRCL is required to comply with the service standards stipulated by the Government. TD oversees whether MTRCL meets the requirements of the service standards by examining the returns submitted by MTRCL on its service performance, monitoring railway services and investigating the complaints received about railway services. TD also ensures that the services of all railway lines comply with the required standards. If MTRCL fails to meet any requirement, TD will demand the railway corporations to take remedial measures.

8. Apart from ensuring that effective and efficient railway services are provided, TD also has a co-ordination role when incidents occur through the Emergency Transport Coordination Centre (ETCC) which it operates. Through the ETCC, TD could co-ordinate with other transport operators to enhance their service and divert passengers, having regard to the extent of service disruption.

9. In case of railway incidents, both TD and EMSD will follow up with MTRCL and request for an incident report. They will conduct investigations, provide advice to MTRCL for preliminary identification of the cause of the incident and the immediate action required. EMSD and TD will monitor the progress made by MTRCL in identifying the cause and implementing improvement measures.

## **Other information as requested by Members**

10. At the meeting of the Subcommittee on 26 March 2010, Members also requested for information relating to railway incidents with service delays lasting between 15 minutes to 30 minutes, more than 30 minutes to 45 minutes, more than 45 minutes to 60 minutes and more than 60 minutes from 2005 to 2009. The relevant information provided by MTRCL is at Annex A.

11. As regards other issues raised by Members on railway safety and communication arrangements between MTRCL and its contractors, MTRCL's response is set out at Annex B.

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From 2005 to 2009, train service delays of 15 minutes to 30 minutes, more than 30 minutes to 45 minutes, more than 45 minutes to 60 minutes and more than 60 minutes are set out at Table 1 to Table 4.

**Table 1: Delays of 15 minutes to 30 minutes**

	2005		2006		2007			2008	2009
	Pre-merger MTR	Pre-merger KCR	Pre-merger MTR	Pre-merger KCR	Pre-merger MTR	Pre-merger KCR	MTR	MTR	MTR
Infrastructure maintenance, Rolling Stock failure and Human Factor	15	12	17	10	7	4	1	38	25
Passenger Action and External Event	1	7	2	6	3	6	1	18	22
Subtotal	16	19	19	16	10	10	2	56	47
Total	35		35		22			56	47

**Table 2: Delays of more than 30 minutes to 45 minutes**

	2005		2006		2007			2008	2009
	Pre-merger MTR	Pre-merger KCR	Pre-merger MTR	Pre-merger KCR	Pre-merger MTR	Pre-merger KCR	MTR	MTR	MTR
Infrastructure maintenance, Rolling Stock failure and Human Factor	3	1	2	1	1	1	0	7	5
Passenger Action and External Event	0	0	1	2	0	1	1	1	4
Subtotal	3	1	3	3	1	2	1	8	9
Total	4		6		4			8	9

**Table 3: Delays of more than 45 minutes to 60 minutes**

	2005		2006		2007			2008	2009
	Pre-merger MTR	Pre-merger KCR	Pre-merger MTR	Pre-merger KCR	Pre-merger MTR	Pre-merger KCR	MTR	MTR	MTR
Infrastructure maintenance, Rolling Stock failure and Human Factor	2	1	2	1	1	0	1	3	2
Passenger Action and External Event	0	0	0	0	0	2	0	2	2
Subtotal	2	1	2	1	1	2	1	5	4
Total	3		3		4			5	4

**Table 4: Delays of more than 60 minutes**

	2005		2006		2007			2008	2009
	Pre-merger MTR	Pre-merger KCR	Pre-merger MTR	Pre-merger KCR	Pre-merger MTR	Pre-merger KCR	MTR	MTR	MTR
Infrastructure maintenance, Rolling Stock failure and Human Factor	1	0	0	0	0	1	0	2	1
Passenger Action and External Event	1	0	0	0	0	0	0	3	5
Subtotal	2	0	0	0	0	1	0	5	6
Total	2		0		1			5	6

**MTRCL's response to other issues raised by Members  
at the meeting on 26 March 2010**

- (a) Assigning expert of the data transmission network supplier to monitor network performance
- Given the complexity of the East Rail Line data transmission network, the supplier's expert, who is the designer of the network, has the most comprehensive knowledge and understanding of the system. Therefore, the expert is most qualified to monitor the system and conduct audits on its performance.
  - Audits for the network are conducted annually. This practice has been in effect for 12 years.
  - The procedures for outside experts working within the MTR system have been tightened by monitoring of audits conducted by experts by MTRCL's staff when the audits are performed.
- (b) Outsourced maintenance work
- Since MTRCL commenced service in 1979, it has put in place a robust monitoring system to ensure that its maintenance work, including outsourced maintenance work, meets the established standards. It should be emphasised that MTRCL applies the same standards and requirements to maintenance tasks carried out by both MTRCL in-house staff and contractor staff. These standards are in line with best practices internationally and the engineers of MTRCL are responsible for monitoring and supervising work quality to ensure compliance. Outsourced maintenance work is also subject to the same regular checks as MTRCL in-house maintenance work.
- (c) Shuttle bus arrangement
- When serious disruptions to train service occur, MTRCL will arrange shuttle bus service to carry passengers in the affected sections. Apart from internal MTR buses, MTRCL has also entered into contracts with Public Omnibus Operators Association to provide shuttle bus services during serious train service disruptions.
  - MTRCL is exploring the feasibility of minimising the activation lead time and increasing the supply of shuttle buses by other operators.

(d) Communication with contractors

- MTRCL maintains regular and good communication with contractors, including when service disruptions occur. Regular meetings and reviews are held with service contractors to monitor performance and share lessons learned from specific experiences. Partnership workshops and sharing sessions are organised from time to time to ensure seamless cooperation. Contractor staff will also join drills organised by MTRCL to enable them to familiarise themselves with incident handling to facilitate smooth handling during service disruptions.

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