

Annex

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

East Rail Line Rail Crack Incidents

Introduction

On 19 January 2008, a rail crack was found at a rail crossing between Kowloon Tong Station and Mong Kok East Station of the East Rail Line. Two similar incidents involving the same type of rail crossing supplied by the same manufacturer also occurred in October and November 2007. This paper serves to report to Members the details of the abovementioned incidents and the remedial measures undertaken by the Corporation following the incidents.

The incident on 19 January 2008

2. At about 6 a.m. on 19 January 2008, a driver of an East Rail Line train experienced a slight vibration over a rail crossing north of Mong Kok East Station when he was operating a southbound train. In accordance with procedures, he immediately reported the case to the Control Centre of the East Rail Line. Rail maintenance staff carried out a site inspection on the rail crossing thereafter and found a small crack at a rail weld of the rail crossing. Although the crack did not have any immediate impact on the safety of railway operation, speed restriction was immediately imposed at that rail section as a precautionary measure. Since trains were only required to slow down slightly when passing that rail section, the headway of the train service was not affected.

3. Subsequently, trackwork maintenance engineers applied steel plates to reinforce that rail crossing with crack in accordance with procedures. After the close of train service on that day, the rail section was also replaced.

4. Following the incident, the Corporation notified the Hong Kong Railway Inspectorate in accordance with the incident notification procedures. The Corporation also issued a press release on the same day to provide an account of the incident.

Similar incidents involving the same type of rail crossings provided by the same manufacturer

5. During the routine rail inspection on 8 October and 20 November 2007, a crack was found at the rail weld of each of two rail crossings of the same type supplied by the same manufacturer near the pre-merger Kowloon-Canton Railway Mong Kok Station and Lo Wu Station.

6. The pre-merger Kowloon-Canton Railway Corporation notified the Hong Kong Railway Inspectorate of these incidents in accordance with the incident notification procedures, and immediately imposed speed restrictions at the rail sections concerned and applied steel plates to reinforce the rail crossings with crack. In both cases, the safety of train operation was not affected and normal train service was maintained. The then Kowloon-Canton Railway Corporation replaced the rail crossings concerned after close of traffic.

Investigations and follow-up measures

7. The Corporation has stringent procedures for inspection and maintenance of rail. Regular inspections, including visual inspection, ultrasonic rail testing and dye penetration test, are conducted as part of the routine maintenance regime. The fact that the two incidents that occurred in 2007 were discovered during routine inspections demonstrated the effectiveness of the maintenance and inspection regime currently in place. The actions taken by the Corporation in handling rail cracks are also in line with international standards.

8. Given that the abovementioned rail crossings with cracks were put in service for less than three years, these incidents are considered not to be related to ageing. Since all three rail crossings are supplied by the same

manufacturer, and the cracks were found at the welds which were made during the manufacturing process to join two pieces of rails, the Corporation has requested the manufacturer to follow up and investigate into the cause of the incidents.

9. Apart from the three rail crossings with cracks that had already been replaced, there are 13 rail crossings in the East Rail Line at present that are of the same type and supplied by the same manufacturer. The Corporation has conducted a thorough inspection on these rail crossings of the same type and supplied by the same manufacturer and no other cracks have been found.

10. As a long-term measure, the Corporation has decided to replace all the rail crossings of the same type supplied by the same manufacturer. The replacement is expected to be completed within 18 months. Prior to this, as a further measure, the Corporation will reinforce these rail crossings and instruct maintenance staff to pay special attention to these rail crossings during routine rail inspections.

MTR Corporation Limited
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