

**Legislative Council Panel on Transport  
Subcommittee on matters relating to railways**

**Enhancement of  
East Rail Mid-Life Refurbished Trains Underframe Equipment**

**Purpose**

In response to Members' request at the meeting of the Subcommittee on 6 May 2006, this paper sets out for Members' information the key elements of the programme for enhancing the underframe equipment of East Rail Mid-Life Refurbished (MLR) Trains.

**Background**

2. On 24 April 2006, KCRC published the report on the Root Cause Investigation of the Underframe Equipment Mounting Cracks, which explains in detail the causes of the incident and sets out recommendations on improvement measures. The investigation result has revealed that the dominant cause of the cracks found in the underframe equipment mounting brackets is excessive vibration of the car-body. To tackle the vibration, the following improvement measures will be implemented in all MLR trains -

- (a) the supporting brackets of all underframe equipment will be strengthened to transcend the level of train vibrations found in the investigation; and
- (b) the suspension system of the entire fleet of MLR trains will be enhanced to more effectively reduce vertical vibrations.

## **Enhancement Programme for East Rail MLR Trains Underframe Equipment**

3. KCRC will take permanent rectification measures including the structural upgrading of all underframe equipment mounting brackets for 348 cars, involving several thousand pieces of equipment. The estimated cost for the works on each car is \$280,000. Moreover, KCRC will optimize the suspension system for 348 train cars at an average of \$65,000 per car. The total expenses for each car is estimated to be \$345,000.

4. The tender for the programme has started and the final expenses of the programme will be subject to the results of the tender.

5. According to the industry norm, enhancement programmes have to be conducted on trains in order to improve their performance. The enhancement programme for the mounting brackets is included as part of the normal maintenance programme. KCRC will be responsible for all the expenses and will not transfer the expenses to passengers.

6. At present, the design of the enhanced supporting brackets has been substantially completed. Other procedures such as procurement of materials, installation and testing in the enhancement programme will be carried out in due course. The whole programme is expected to be completed by 2007.

Kowloon-Canton Railway Corporation  
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