

CONTROLLING OFFICER'S REPLY

THB(T)019

(Question Serial No. 0210)

Head: (42) Electrical and Mechanical Services Department
Subhead (No. & title): (-) Not Specified
Programme: (2) Mechanical Installations Safety
Controlling Officer: Director of Electrical and Mechanical Services (CHAN Fan)
Director of Bureau: Secretary for Transport and Housing

Question (Member Question No. 4):

For the manpower and work of the Railways Branch (RB) of the Electrical and Mechanical Services Department (EMSD), please provide the following information:

- (1) In the RB, what are the number of staff of various ranks, the number of staff of various academic qualifications, the number of staff of various streams and the number of staff of various railway experiences? What is the overall staff expenditure of the RB?
- (2) In carrying out inspection work of railway equipment / system, how does the RB determine which part of the railway equipment / system has to be inspected? What is the regular inspection timetable? Are the inspections conducted by sample checks? What is the method of sample check?
- (3) In view of the recent major incidents of a systemic nature and the coming opening of new lines, is there a need to increase manpower to strengthen the monitoring of the railway equipment / system's maintenance and safety?
- (4) How many investigation reports were proactively submitted by the MTR Corporation Limited (MTRCL) to EMSD in the past three years? How many investigation reports were submitted by MTRCL on the request of EMSD in the past three years?
- (5) How many times did the EMSD attend the incident site for investigation in the past three years? How many days did the MTRCL require for the follow-up action requested by the EMSD in each category?
- (6) What is the incident figure related to improper repair, installation and maintenance of the MTRCL in past three years? What is the incident figure related to machine parts quality issue in the past three years?

Asked by: Hon. TANG Ka-piu

Reply:

- (1) In line with international practices, the RB adopts a “risk-based approach” in regulating railway safety, so that closer attention would be given to areas that might pose higher risk to safety of railway operation based on track record. Safety inspections are also arranged accordingly. Besides, the RB also monitors, through inspections and assessments, the MTRCL’s robustness in its internal systems and management practices to ensure that the MTRCL adheres to the best international safety practices and standards.

The RB has 15 professional staff and two technical staff, namely one Assistant Director, six Senior Engineers, eight Engineers/Assistant Engineers, and two Inspectors. Of the 15 professional staff, 11 are in electrical and mechanical engineering discipline, three in electronic engineering discipline, and one in civil engineering discipline. Of the two technical staff, one is in mechanical engineering discipline and the other in electrical engineering discipline. Of the 17 professional/technical staff, one has acquired doctor’s degree, 14 have acquired master’s degree, and two have acquired bachelor’s degree. Three of these staff have more than ten years’ experience in railway, three have five to ten years’ experience, and 11 have up to five years’ experience in railway.

The salary expenditure on the above professional/technical staff was \$14.905 million in 2013-14.

- (2) Whenever there are railway incidents requiring investigation, the RB carries out inspections to investigate the cause, identify appropriate improvement measures to prevent recurrence, and ensure that the MTRCL has duly implemented them. Furthermore, the RB regularly inspects the safety-critical areas of the railway lines to ensure railway safety. For new railways, the RB carries out safety tests and inspections to ensure safety requirements have been met prior to confirming that the new railways are safe for operation. For existing railways, the RB will increase the frequency of inspections if there is increase of safety incidents due to equipment failure. Normally, the RB carries out several inspections of railway facilities per month.
- (3) The RB has dedicated teams to monitor the safety of existing railway lines and oversee new railway projects. It regularly reviews the manpower to cope with the ongoing railway works to ensure railway safety.
- (4) Under the Mass Transit Railway Regulations (Cap. 556A), the MTRCL shall report railway incidents to the EMSD. The MTRCL proactively submitted 839, 774 and 671 railway-related incident^{Note} investigation reports to the EMSD in 2011, 2012 and 2013 respectively, stipulating details of the incidents, assessment by the MTRCL and immediate follow-up actions taken. The RB reviewed all reported incidents and if necessary sought additional information to ascertain the cause of each incident to prevent recurrence.
- (5) In 2011, 2012 and 2013, the RB conducted 177, 129 and 140 railway inspections respectively. Out of these inspections, about half were related to investigation of incidents.

Whenever there is a major railway incident, the RB will follow up with the MTRCL to identify the cause of the incident and monitor the MTRCL in implementing appropriate improvement measures to prevent recurrence. The time required to complete a railway incident investigation and the implementation of the improvement measures depends on the nature and complexity of the incident. The situation varies for different incidents. There are no statistical data on the number of days required for the MTRCL's follow-up action.

- (6) Railway-related incidents, as referred to in question (4) above, are classified into equipment failure, staff behaviour, passenger or public behaviour, and external factors. The numbers of these incidents in the past three years are set out below:

Railway-related Incidents	2011	2012	2013
Equipment failure	35	20	17
Staff behaviour	43	28	44
Passenger or public behaviour	737	697	578
External factors	24	29	32
Total	839	774	671

Over 90% of these incidents were caused by passenger or public behaviour and other external factors, such as illness of passengers who need to be admitted to the hospital, passengers nipped by train doors during last minute boarding/alighting, trespassing and fallen trees under tropical typhoons. The remaining incidents (less than 10%) were caused by railway equipment failure and staff behaviour.

^{Note} Excluding incidents involving escalators, lifts and other facilities outside the platform and track areas.