City Talk

Tseung Kwan O was one of the hardest-hit MTR stations in the unrest, with the subway operator closing it for a week for damage to turnstiles and platform screen doors. SAM TAO/ERIC WONG

LET'S NOT HAVE TUNNEL VISION ON RAIL SAFETY

Nuts and bolts
Edmund Leung

Recent disruptions to MTR services are causing havoc for everyone.

In Tseung Kwan O, commuters were forced to walk for an hour or more to get to the nearest station to get to work.

I have said that, for a congested city like Hong Kong, if the railway is not operating, road transport services have no chance of coping with demand.

I have been proven right, but that is not the point.

In public transport, safety is always the prime consideration. No railway company will allow its system to run unless it is safe. Convenience to commuters and revenue for the railway company, unfortunately, are only of secondary importance.

Some people believe that as long as the entrance gates are functioning and the station concourse is clear of obstructions, there should be no reason why a station has to be closed. Let me reveal how railway professionals see these issues.

Safety is paramount, especially when thousands of people are being moved every minute.

When there is a fire or any other hazard that may threaten passenger safety, the first and foremost consideration is how to allow them to leave a station safely.

Damaged fire-protection systems, sprinklers and others will mean that, in the event of a fire, those trapped in a station platform and concourse lose protection.

Apart from contravening the fire code and getting into trouble with the Fire Services Department, the railway company bears responsibility for any failure to protect human lives. This is most certainly not acceptable in risk-management terms!

Damaged platform screen doors cause not only disruptions but also a loss of protection against passengers and unwanted object intrusions in tunnels.

Non-functioning CCTVs and control rooms, broken glass and damaged ceilings prevent the monitoring of passenger flows, making crowd control and emergency measures hard when incidents occur. This is definitely a "no-no" for railway operation.

In the case of a fire or other incidents on a running train, the train captain must try to get the train to the next station for an evacuation instead of stopping it in a tunnel (or viaduct) and letting passengers off through emergency doors.

Travel from one station to the next takes only a few minutes (two minutes for the underground and probably five for a suburban line).

To evacuate passengers from a train in a tunnel or a viaduct, a control room has to first make sure other trains have stopped and then turn off the power system, except for the emergency lights. They would then switch ventilation to emergency mode to ensure smoke from the fire can be extracted effectively and prevent people walking along the tunnel from suffocating.

Most importantly, staff are needed to guide passengers in walking safely.

This is complicated and cannot be done in a few minutes. It would normally take 30 minutes before passengers can start leaving, and they probably have to walk another 15 minutes to the nearest station or exit. These 30 to 45 minutes, pose immense risks to thousands.

One does not need to be an expert to see the danger of a tunnel evacuation.

It is neither desirable nor totally safe, as passengers are not trained to walk along tunnels in dim light with an assortment of equipment installed along the track.

To all rail commuters, your life and well-being is much more important than getting you to your destination for work and play. Please support the railway operator in ensuring safety for all.

Veteran engineer Edmund Leung Kwong-ho casts an expert eye over Hong Kong's iconic infrastructure