

Challenges and Opportunities in Upholding Railway Safety in Hong Kong Under COVID-19 Pandemic

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KC Cheung
Chris Yeung

Electrical and Mechanical Services Department
The Government of the Hong Kong Special Administrative Region



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Regulation of Railway Safety in Hong Kong

1. Electrical and Mechanical Services Department (EMSD) is the statutory regulatory authority overseeing the safe operation of railway systems in Hong Kong.
2. Regulatees include:
 - MTR Corporation Ltd.
 - Heavy Rail, Light Rail and High Speed Rail
 - Airport Authority Hong Kong
 - Automated People Mover at the airport
 - Hong Kong Tramways, Ltd.
 - Tram
 - Peak Tramways Company, Ltd.
 - Peak Tram



Impacts of COVID-19 Pandemic on Railway Safety

1. The outbreak of COVID-19 posed serious limitations on the flow of people, materials, and equipment across regions and countries.
2. Global economy deeply plagued by anti-epidemic measures implemented by governments to avoid spreading of the disease.
3. Unlike other countries which prepare to live with the virus, the Government of the HKSAR strives to achieve sustained "Zero Infection" level through implementation of a lot of stringent anti-epidemic measures.



Source: <https://qz.com/1967413/hong-kongs-latest-covid-19-strategy-daily-ambush-lockdowns-2/>



Impacts of COVID-19 Pandemic on Railway Safety

4. Anti-epidemic measures include virus testing, contact tracing, social distancing, immigration control, and provision of quarantine and isolation facilities in accordance with existing legal requirements, such as the Prevention and Control of Disease Ordinance (Cap. 599)
5. Free COVID-19 Vaccination Programme for all Hong Kong residents on voluntary basis



Source: <https://www.bbc.com/news/world-asia-china-53596299>



Impacts of COVID-19 Pandemic on Railway Safety

6. Economic activities in Hong Kong were hard-hit by the pandemic causing serious setback in business of different trades, including railway industry.
7. The pandemic not only hindered co-operation in railway industry across the globe, but also presented unprecedented challenges to railway regulators and railway operators in upkeeping their work for ensuring railway safety.
8. The pandemic also provided opportunities to EMSD and railway operators in a number of areas for upholding railway safety in Hong Kong.



Challenges

1. Impacts on regulatory work

- Challenges in manpower planning for meeting committed schedules for carrying out regulatory work
- Cancellation of face-to-face meetings with stakeholders affecting communication and information sharing
- Limitation in processing railway operators' statutory submissions under work from home arrangement



2. Limitation of people flow across countries/regions

- Delay in provision of professional services by consultants due to stringent restrictions to limit people travelling across countries/regions



Challenges

3. Interruption of global supply chains

- Overseas equipment manufacturers' factories/offices on lockdowns
- Suspension of international air/sea freight
- Lack of critical spare parts for maintenance work



4. Interruption of international/regional collaborations

- Suspension of participation in overseas visits/international conferences by travelling aboard
- Suspension of face-to-face meetings/visits with stakeholders in Mainland



Challenges

5. Setback in railway operators' business

- Slowdown in social activities and suspension of cross-border train services
- Drastic drop in nos. of passenger and business revenue resulted in pressure on funding improvement / maintenance works
- Challenge in resource planning for maintaining railway operation under government's stringent anti-epidemic measures



Challenges

6. Increasing needs for wider application of I&T

- Government's policy to use more I&T by bureaus/departments to improve public services and facilitate trades to deliver better services to the public
- Increasing public's expectation for higher railway safety to boost up the public's confidence in using railway service under pandemic
- Limited R&D capability on development of I&T solutions for adoption



Opportunities

1. Enhanced measures to maintain regulatory services

- Formulation of the “Business Continuity Plan (BCP) for Novel Coronavirus Infection” to set out the following requirements for maintaining regulatory services under the pandemic:

- Emergency Operation Plan
- Staff Deployment Plan
- Office setting
- PPE requirements
- Utilization of electronic communications
- Monitoring of railway operators’ BCPs
- Emergency Communications and Reporting Protocol



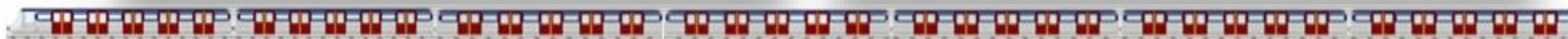
- Development of online platforms to enable remote processing of operators’ submissions by EMSD staff under work from home arrangement



Opportunities

2. Enhanced communication using on-line tools

- More convenient to participate in local/international webinars
- Increased flexibility in arrangement of online meetings
- Facilitation of document sharing through online platforms



Opportunities

3. Sourcing of more alternative suppliers

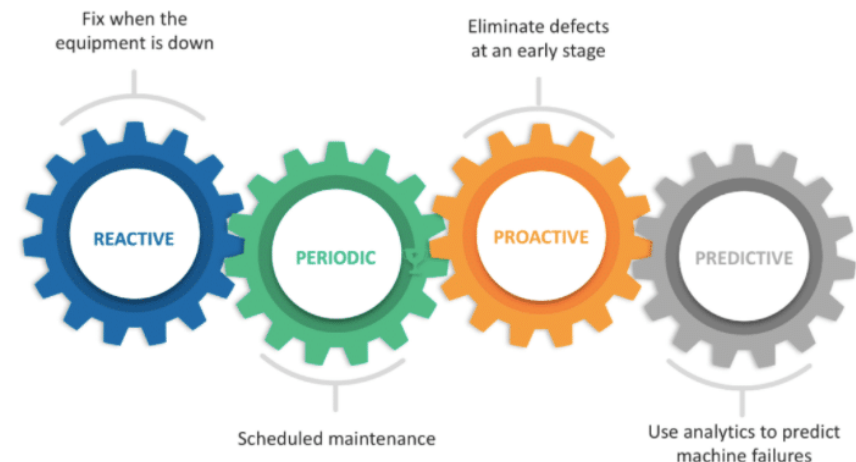
- Increased opportunity for engaging local consultants/experts as alternatives for provision of professional services under the pandemic
- Identification of alternative supply sources to enhance the flexibility of obtaining critical spares for maintenance work



Opportunities

4. Accelerating implementation of predictive maintenance

- Expediting investment in adopting new technologies for monitoring real-time operating conditions of critical railway systems and triggering of alarms for carrying out maintenance work before equipment breakdown
- Analyzing collected real-time data to determine the health condition of critical railway systems and formulate predictive maintenance strategy to prevent railway incidents



Way Forward under the New Normal

1. Be a smart regulator. Expedite our own I&T transformation by digitalising regulatory services operations to enhance work effectiveness and efficiency
2. Beyond being a regulator. Promote and facilitate railway operators to widely adopt I&T for improving their O&M work



Way Forward under the New Normal

3. EMSD will continue to apply I&T in regulatory work and collaborate with railway operators to explore wider adoption of I&T for enhancing railway safety
4. Deepening our culture of “curing diseases before they arise” to prevent occurrence of incidents and stay vigilance and get prepared for the next round of pandemic or other crises.



EMSD assists in fighting against COVID-19



Thank You

