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Your Ref ██████████
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██████████
Web www.lrssb.org
Date 19th November 2021

Dear Mary,

RE: LRSSB Response to HM Coroner's Regulation 28 Report to Prevent Future Deaths sent to LRSSB on 21st September 2021 - Automatic - Braking

1. The Role of LRSSB

- 1.1 The Sandilands accident occurred in November 2016 with the Rail Accident Investigation Branch (RAIB) report being published in December 2017 (Sandilands Report). Recommendation Number 1 of that report was for the ORR to work with the UK tram industry to develop a body to enable more effective UK-wide cooperation on matters related to safety, and the development of common standards and good practice guidance. The UK light rail industry responded quickly to Recommendation Number 1, forming a working group of senior industry representatives to consider the most appropriate organisation, and underlying structure, including how the new body should be funded.
- 1.2 The Light Rail Safety and Standards Board (LRSSB) was incorporated on 14 August 2018 and initially operated in shadow form. In May 2019 LRSSB received its initial funding from the Department for Transport. In conjunction with receiving this funding the Terms of Reference and the LRSSB Business Plan were able to be ratified by the Board of Directors later in May 2019.
- 1.3 It should be noted that the LRSSB is the safety and standards body for light rail and tramways in the UK and is completely separate (both in ownership and funding sources) from the Rail Safety and Standards Board (RSSB). The RSSB was itself established in 2003 following the recommendations of the Cullen Report into the Ladbroke Grove incident which included the establishment of an independent safety and standards body for the heavy rail sector.
- 1.4 While LRSSB received an initial 3-year funding settlement from the Department for Transport it has no guarantee of future funding at the end of this initial funding period which expires August 2022. The level of staff employed by LRSSB and consequently

the amount of work that it can undertake has a direct relationship with the funding settlement that it receives from the Department for Transport.

- 1.5 LRSSB is recognised and accepted by the light rail community, the Department for Transport and the Office of Rail and Road in the UK as the industry body responsible for providing standards and guidance relating to safety and the design, construction, maintenance, and operation of light rail systems in the UK. LRSSB has established and is continuing to develop a reference library where such industry standards and guidance can be found.
- 1.6 It should be noted, however, that LRSSB is an organisation that requires voluntary adherence to its guidance and best practice. Unlike the heavy rail industry, light rail operators are not required to be licensed under the Railways Act 1993 and there are therefore no licence conditions requiring membership of LRSSB or compliance with its outputs, however, currently, all seven 2nd generation UK tram networks are members of LRSSB and are actively engaged. While some parts of the Railways Act 1993 do apply to light rail and tramways, significant parts of that Act do not. This reflects the historic policy position that Government has taken under which light rail and tramway systems have generally been more associated with highways provisions rather than the more heavily regulated mainline railways.

2. LRSSB's current ongoing work with respect to Automatic Braking [Driver Inattention and Speed Management Systems]

- 2.1 The development of standards and guidance takes a significant number of months. A working group is established within which skilled safety professionals discuss the requirements for the document and the specific matters that it needs to cover before the text of the initial draft is developed. That draft document must be reviewed and tested to ensure that it is fit for purpose before it can be signed off for its release or use by the UK light rail sector. It should also be noted that LRSSB works closely with the ORR in its development of industry standards and guidance.
- 2.2 In the Preventing Future Matters report published by HM Senior Coroner, South London, LRSSB was asked to respond on the topic of Auto Braking. The report details how trains are fitted with auto-braking systems and, although trams are driven by “line of sight”, whether a fresh assessment of auto braking for trams would be appropriate at this stage.
- 2.3 In May 2021 LRSSB published guidance on detection of driver inattention (Guidance Document LRG 17.0) and speed management (Guidance Document LRG 18.0) in response to RAIB recommendations 3 and 4 in the Sandilands Report. This guidance is now being implemented and/or trialled across the UK networks, including advanced options to provide continuous automatic vehicle speed monitoring, which is an intelligent safe-speed system for advance warning or hazard speed monitoring.
- 2.4 LRSSB expect that the actions being taken by individual networks across the country will be supported by suitable and sufficient risk assessments; drawing on the outputs

of the LRSSB sector risk model and guidance as necessary; and taking account of the effectiveness of other risk controls that are in place.

- 2.5 In parallel, several individual tram networks continue to undertake their own research into driver inattentiveness and speed monitoring systems as they develop system specific solutions that reflect the characteristics of their network and tramcars. We welcome this work in these areas and expect individual systems to consider the LRSSB guidance as they finalise/update their risk control arrangements, to demonstrate that risk is controlled as low as reasonably practicable.
- 2.6 LRSSB will continue to monitor advancements in this area and have also recently commissioned a research and development trial for obstacle detection / avoidance systems for use on light rail vehicles. We expect the outcomes of this trial to be available by end January 2022.

3. LRSSB's Conclusions

- 3.1 Whilst the status of some of RAIB's recommendations remain 'implementation on-going', significant progress continues to be made within the sector. It is important to ensure clarity of progress and conclusions should not be rushed where possible to avoid producing sub-optimal conclusions in the longer term. LRSSB will always look at any proposed changes with a view to the holistic risk profile, however, optimisation of driver inattention and speed management systems should prevent the risk of topple due to excessive speed.
- 3.2 LRSSB believe that the adoption of the guidance published will significantly reduce the risk of a similar occurrence. LRSSB has placed a 12-month review date to the guidance and intends to monitor implementation along with any supplementary beneficial actions that the networks may have taken.
- 3.3 LRSSB continues to record, monitor, and assess hazardous events and their precursors through the national Tram Accident and Incident Reporting database (TAIR). All networks submit data to this LRSSB database. These inputs are then fed through to the LRSSB National Risk Model which provides outputs that identify potential current and future risk to both the UK sector as a whole or an individual network. Using this data LRSSB can then focus attention on any new technology or process required. LRSSB will, by the production of standard / guidance or by research and development seek to mitigate the chance of the identified event occurring. LRSSB believe that the use of this "live" database and its outputs will aid the sector in preventing future serious incidents.

Issued: - 19th November 2021

Yours sincerely,

A handwritten signature in black ink, appearing to be 'A. Smith', written over a horizontal line.


Chief Executive