

Date: 15 November 2023

Item: Safety Risk Management on TfL Services

This paper will be considered in public

1 Purpose

- 1.1 Transport for London (TfL) and Tram Operations Limited (TOL) both pled guilty to offences under Health and Safety legislation in relation to the Sandilands tram tragedy. The memory of that day in November 2016 continues to serve as a constant reminder of the need to put safety at the heart of everything we do and our thoughts remain with those involved in the crash and their friends and families.
- 1.2 In the wake of Mr. Justice Fraser's remarks at the sentencing hearing on 27 July 2023, and a further review of our approach to safety, this paper summarises lessons and action areas identified. It begins with an overview of our approach to managing safety risks and improving safety performance.
- 1.3 Following the Sandilands tram tragedy on 9 November 2016, investigations were carried out by the Rail Accident Investigation Branch (RAIB) and TfL. These led to recommendations to address the immediate and specific causes of the tragedy that had been identified by the investigations. Examples of action taken as a result included changes to infrastructure such as signing and CCTV, innovative devices to prevent trams from over-speeding at higher risk locations, fatigue detection equipment designed to monitor driver alertness and the development of a tram-specific risk model. A full description of these recommendations and the actions we have taken in response was provided to the Panel on 22 January 2018 and to the TfL Board on 18 September 2019. The Office of Rail and Road (ORR) has confirmed that it is satisfied that the RAIB recommendations relevant to TfL have been implemented and has not raised further issues to date.
- 1.4 The sentencing remarks of Mr. Justice Fraser emphasised not just the immediate and specific causes of the crash but also stated that underlying systemic, cultural, and organisational factors were present in tram operations at the time of the tragedy. These factors hampered the ability to manage the inherent derailment risk in the geometry of the curve at Sandilands.
- 1.5 Since 2016, TfL has taken steps to further improve safety risk management across all its modes, key elements of which are described in this paper. However, in light of the Court's comments, and in order to continue to learn and improve, we have carried out a further exercise to identify any additional actions necessary to provide assurance to ourselves, our Board and external stakeholders that appropriate systemic controls are in place in the wider TfL business.

- 1.6 This paper summarises the results of that exercise and sets out specific time-limited actions necessary to further strengthen systemic controls.

2 Recommendation

- 2.1 **The Panel is asked to note the report and make any suggestions to further improve safety performance.**

3 Managing Safety Risk

- 3.1 TfL is clear in its public commitments to put safety at the heart of our operations. We have set an ambitious Vision Zero target for safety improvement, and public transport remains the safest way to travel in London. Our approach is necessarily based on an unrelenting focus on safety and the need for multiple lines of defence to control the risks that arise from operating transport services. Our approach is also based on combining strategic and structural improvements alongside active assurance of safety and continuous learning.

Pan-TfL Strategic and Structure Improvements to Safety Management

- 3.2 Since 2016, we have introduced several strategic improvements that build on previous arrangements.

Clear Accountabilities, Governance and Decision-taking

- 3.3 In addition to external regulation by our safety regulators including the Health and Safety Executive and the ORR, we ensure that there are relevant layers of internal scrutiny and challenge around safety. The Panel will be aware that ultimate oversight of our performance is provided by the Board. Under the Board structure the Panel provides specific scrutiny and advice on our safety performance.
- 3.4 In 2022, we restructured our Executive Committee meetings to develop a dedicated Safety Exco meeting. The Safety Exco is co-chaired by the Chief Safety, Health and Environment (SHE) Officer and the Commissioner. It meets every eight weeks to review strategic trends in both lagging and leading indicators and to discuss specific improvement projects. The Safety Exco also acts as the pan-TfL Safety Change Assurance body for any changes to standards or practices affecting more than one of TfL's operational areas.
- 3.5 Under that overarching structure, each Chief Officer has their own regular SHE meeting as well as scrutinising safety in their performance meetings. Each operational mode additionally has their own Safety Change Assurance process governing proposed changes that affect them specifically and are relevant to their operational duties.
- 3.6 This structure of three layers from the Executive to Chief Officers to individual operational Directors mirrors our overall risk management framework which consists of:
- (a) Level 0 enterprise risks, governed by the Executive Committee, of which Enterprise Risk 1 focuses on Safety and is presented to the Panel annually;

- (b) Level 1 risks, in the case of safety governed by Safety Exco, which describes the pan-TfL risks and controls necessary to manage safety;
 - (c) Level 2 risks, setting out specific categories of hazards (e.g. fire) as they apply to individual parts of TfL's operations; and
 - (d) Workplace and Customer Risk Assessments designed to support risk identification and mitigation around specific tasks or sites.
- 3.7 In 2020, we restructured our Health, Safety and Environment function to the new SHE Directorate, with the remit to 'advise, support and hold to account' the business in discharging their responsibilities under law and our policy objectives. The Chief SHE Officer works to ensure that safety is championed at the executive level and to provide a perspective independent of delivery management structures. The SHE Directorate combines a number of functions and has dedicated Business Partners who work closely alongside individual business areas and operating modes.

Making Safety Easy

- 3.8 Within that overall Governance and Risk Management framework it is key that individuals are clear on their specific personal accountabilities in law and in the way that we manage and mitigate safety risk.
- 3.9 The foundation of this is our SHE Management System (SHEMS). While some individual transport modes are required under The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS) to have their own safety management systems, the SHEMS provides the overarching TfL-wide set of controls. In June 2023, we completed a project to update SHEMS, simplifying and deduplicating the system and moving it entirely onto an interactive digital platform. This has a number of direct benefits:
- (a) making it easier and quicker to navigate and find the necessary instructions and advice;
 - (b) enabling us to embed decision-support tools (for example whether health surveillance is required for particular groups of workers) and 'bite-size' training;
 - (c) enabling us to track use of the system;
 - (d) enabling effective version control so that users always have access to the latest advice; and
 - (e) enabling the system to be configured around particular types of role, meaning that the most relevant information is served up directly.
- 3.10 Having updated the SHEMS format and platform, we are now moving into a phase of continuous improvement regarding particular topics.

- 3.11 It is critical that as well as setting out requirements in SHEMS we also seek the necessary assurance that safety procedures are being followed. We operate a 'Three lines of assurance' approach where checking is carried out by:
- (a) responsible managers (Line 1);
 - (b) SHE Business partners, the Quality Safety and Security Assurance Team and others (Line 2); and
 - (c) Internal Audit (Line 3).
- 3.12 These assurance checks are internal and in addition we also commission external expert advice in areas of key importance or risk, for example rail modernisation programmes and bus safety. We also maintain regular dialogue with our regulators to ensure we are on track.
- 3.13 Where we contract or commission services from other transport providers, we carry out a variety of independent SHE assurance checks – by the SHE team and/or the General Counsel team. These include regular SHE assurance visits by the SHE team of our bus operators, and annual General Counsel audits of our rail modes (both of the TfL team and of our suppliers), including trams. These independent checks allow us to ensure that the TfL team and our suppliers are meeting their legal safety requirements (as set out in law and in the contract), as well as focusing on specific issues should we consider that necessary. These checks are additional to continuing dialogue between our teams and our suppliers where safety is routinely discussed and good practice and learnings shared. For example, we share safety improvement initiatives between teams and work together on improvement plans and London Trams reviews the industry-wide Trams Safety Risk Model annually and use this to create an annual TfL-TOL Joint System Safety Improvement Plan for the tramway.
- 3.14 Since 2021, we have been implementing a programme of developing a digital assurance tool (IAuditor) and providing digital checklists to cover the most common safety inspections and checks. By digitising our Assurance activity we have:
- (a) made it easier to complete assurance checks and capture supplementary information, such as photos;
 - (b) enabled assurance to link directly to fault reporting systems, enabling a more seamless response to any faults identified;
 - (c) enabled managers to schedule first line assurance checks which are 'pushed' to individuals and for the manager to see whether those checks have been completed; and
 - (d) enabled us to extract data from the system around the level of safety assurance, any trends in fault reporting etc, which can act as leading indicators.

- 3.15 The iAuditor system rollout is substantially complete and we are transitioning into a process of embedding its use.
- 3.16 Risk Assessment is central to our ability to mitigate and control risks and we have a wide range of tools in use to support risk assessment including Quantified Risk Assessment models, specialist topic assessments and generic assessment frameworks.
- 3.17 As we complete the SHEMS and iAuditor projects we are beginning a further project to update our guidance on risk assessment and to develop an updated risk assessment tool. Similar to iAuditor, it is intended that this should simplify the risk assessment process, enable tracking of risk assessment review dates, help identify gaps and enable easier communication of instructions to manage risk. This project is currently at the stage of identifying lessons from our current system and will continue into next year.
- 3.18 Overall, our approach to providing safety tools at a strategic level is to simplify, to digitise and to enable them to be configured to make the relevant information easy to find and act upon.

Consistent Good Practice

- 3.19 TfL's different delivery models, and the evolution of the organisation, means that we have different risk methodologies and processes for different TfL modes. In many instances services under the roundel are provided by contractors, e.g. the Docklands Light Railway (DLR), London Overground, Elizabeth line, the Cable Car, Trams, London bus et al and in construction projects. The Health and Safety at Work etc. Act 1974 and other health and safety legislation and regulations set out the legal duties on us and our contractors in those differing circumstances. More detail is provided below about our operational oversight of these and other services.
- 3.20 Since 2022, we have been working to establish a more standardised set of contract requirements for SHE performance. It is intended that this will assist with clarifying accountabilities between us and our contractors and, over time, reduce complexity as requirements become increasingly consistent between contracts. In the first instance we are piloting this approach with contractors in the construction and projects domain and those new requirements were launched in early October 2023.

Safety Culture

- 3.21 Tools and procedures will not be effective if people do not want to, or do not feel empowered to, use them effectively. As well as the simplification and digitisation described above, core to improvements in safety performance will be the safety culture of the organisation as articulated and demonstrated by leaders and as evident in the behaviours of our people and suppliers.

- 3.22 In 2021/22, we developed a specific SHE Cultural Maturity Model (CMM). This allows us to define and, crucially, measure current SHE culture as a basis for targeted improvement planning. This initiative is part of a wider SHE Culture programme that includes SHE Leadership, measures to build psychological safety and trust, and measures to ensure we take a just and fair approach to safety matters, encouraging and facilitating people's willingness to raise concerns.
- 3.23 The CMM was piloted across a range of areas in 2022. Following evaluation of the pilot we are now rolling out a series of CMM surveys in areas across TfL including Bus Operations, London Underground Customer Operations and parts of Capital. All SHE Business Partners will receive training on the CMM during 2023/24 and the CMM assessment will then be used by them to work with each business area and develop an improvement plan for that area that responds to the findings of the CMM survey. We will continue to share best practice on building strong safety culture with our supply chain.
- 3.24 Finally, we also have other continuing measures in place to encourage our people to bring forward any concerns or safety issues. We subscribe to the CIRAS confidential reporting service and ensure the service is available and promoted both to directly employed staff and to London bus operator employees. The CIRAS service is independently run and allows our people to raise safety or other concerns anonymously. Additionally, we have full structure of consultation and meaningful engagement with our recognised Trade Union colleagues in a range of Health and Safety forums allowing issues to be raised and addressed collectively.

Acting on Opportunities to Improve

- 3.25 We have a number of measures in place to ensure that we act when we have opportunities to improve.
- 3.26 Whenever a serious incident or high potential near-miss occurs, Directors are required to trigger a local investigation, or in the most serious instances an internal Formal Investigation. Formal Investigations are led by trained investigators supported by the SHE team. Lessons-learned summaries of our Formal Investigations have been routinely created since 2021 and circulated widely within the organisation. Action delivery is actively tracked and reported to the Safety Exco.
- 3.27 We capture information about incidents involving our services into the IE2 and IRIS (for bus) safety incident reporting systems. This provides a growing evidence base from which we identify strategic trends, underlying causal factors and high-risk locations in order to develop strategic and local improvement plans. We are in the process of upgrading the safety incident reporting system to bring all safety data into a single system and to improve the flow of information from our contracted service providers. This will enable us to generate greater insight and give us a stronger view of precursors and leading indicators.

3.28 We have also increased the visibility of customer safety reporting. Since 2018 customer feedback obtained via our web-form or contact centres can be tagged as safety-related when appropriate, to distinguish safety from other customer concerns or correspondence. SHEMS contains clear instructions for how to handle customer safety complaints and set out accountabilities and routes for rapid escalation of those that may be safety critical.

The operational assurance of contracted services

3.29 We recognise that, to provide a safe working environment for our customers, colleagues and members of the public, we must work closely with the organisations who provide services on our behalf. We also recognise the importance of working with partners/suppliers who are committed to working with us to deliver our Vision Zero goals.

3.30 Prior to letting any concession or contract, we carry out a detailed assessment of the suppliers' safety history, experience, competence and approach. Our new standardised set of contract requirements for SHE performance for construction and project suppliers (noted above) will help us deliver our SHE goals.

3.31 We carry out regular SHE assurance of our operations, including contracted services. The areas we focus on depend on the nature of the operations and activities, and the safety risks associated with those activities.

3.32 We have regular discussions about safety with the supplier organisations who operate services on our behalf. The format of these discussions varies across TfL modes, but the principles of the discussions are similar:

- (a) our suppliers present data concerning their safety performance and we discuss significant safety incidents and/or trends in safety performance;
- (b) our suppliers are encouraged to raise safety issues or concerns at these meetings so that we can work in partnership to resolve these issues; and
- (c) we discuss emerging risks, often sharing relevant safety-related information, such as Investigation Reports, Briefing Notices, Safety Alerts or bulletins from other parts of TfL or the transport industry.

3.33 Our frontline colleagues, such as bus station controllers or pier controllers, are also equipped with the tools to act as the first line of defence and able to raise observations and feedback in relation to day-to-day safety performance and issues relating to an operator's safety performance when directly interfacing with our sites.

3.34 Where we have concerns about safety incidents or performance, relevant members of TfL Executive Committee will meet their Executive counterparts in our supplier team to ask for appropriate assurance and evidence that risks are being appropriately managed.

4 Learning from the Sandilands Tragedy

- 4.1 In sentencing TfL and TOL in July 2023, Mr. Justice Fraser referred to a number of organisational factors that he said had been present in tram operations prior to the crash and which he said had hampered the management of derailment risk.
- 4.2 Taking the Judge's remarks as a whole, we have identified six specific themes. We have reviewed our systemic controls against those themes and, where we have identified opportunities to further improve systemic controls, we have identified necessary actions.
- 4.3 The six themes identified are:
- (a) risk identification, assessment and management;
 - (b) governance;
 - (c) management of suppliers (in this case a concessionaire);
 - (d) safety culture;
 - (e) precursors and near-misses; and
 - (f) the design and maintenance of infrastructure.
- 4.4 We have identified a series of actions that we will take in order to further strengthen controls against these themes. These actions have been developed internally and shaped with input from Board Members. These are in many cases not new actions but are designed to strengthen the application of our safety toolkit and the availability of assurance information. The actions under each theme are briefly summarised in this paper. Each of the actions will be sponsored by a specified Chief Officer, as summarised below.

Risk Identification, assessment and management

- 4.5 We will carry out a deep-dive risk review into operations where accountabilities have changed or where third-party interfaces exist to ensure assessment and management of risks is in line with our standards. This will also inform our approach to carrying out the necessary due diligence prior to any future acquisitions or bringing new services into operation. This work will be sponsored by the Chief Operating Officer.
- 4.6 We will further enhance our SHEMS with specific information on legal SHE accountabilities of senior (Chief Officer and Director) officers and document where responsibility is delegated. This work will be sponsored by the Chief SHE Officer.
- 4.7 We will review our overall risk assessment framework with a view to simplifying where practical. This will include identifying the need to specify any appropriate changes to risk management tools. This work will be sponsored by the Chief SHE Officer.

- 4.8 We will document the principles by which risk-based assurance planning should take place across all TfL functions and cascade it to all relevant teams. This will include reviewing the functioning of our 3 lines of assurance model and identifying where external assurance may be beneficial. This work will be sponsored by the General Counsel.

Governance

- 4.9 We will identify all relevant safety operational decision-making meetings and ensure consistent terms of reference are in place including clear escalation routes and criteria for overdue actions. This work will be sponsored by the Chief Operating Officer.
- 4.10 All actions from in-scope meetings (as outlined above) will be entered into a centralised Action Tracker, enabling greater continuing visibility of actions raised and their status. The development of the tracker will be sponsored by the Chief SHE Officer and the adoption by relevant meetings will be sponsored by the Chief Operating Officer and Chief Capital Officer.
- 4.11 In order to give greater visibility of local investigations and to maximise the opportunity for pan-organisational learning, all Local Investigation Reports will be circulated across relevant teams, regardless of modes, and actions arising from those investigations will be tracked via the centralised Action Tracker (above). This work will be sponsored by the Chief SHE Officer.
- 4.12 We will review the maturity and status in technical governance across TfL, relative to best practice principles and examples in similar organisations, and identify and recommend immediate and longer-term improvements in governance systems to address the findings. This work will be sponsored by the Chief Capital Officer.
- 4.13 We will review how best to enhance Board-level safety scrutiny and oversight of our safety performance. This action will be sponsored by General Counsel.

Concessionaire Management

- 4.14 In line with the approach we have taken to construction and projects, described earlier in this paper, we will develop a standardised framework for specifying concessionaire SHE performance in future contracts. This will be informed by best current practice/performance, including incident reporting and management. This work will be sponsored by the Chief Finance Officer.
- 4.15 On completion of an agreed framework, we will benchmark current concessionaires against the framework. This work will be sponsored by the Chief Operating Officer.
- 4.16 We will conduct an arm's length (third line) review of our oversight and management arrangements across all concessionaires. This work will be sponsored by General Counsel.

Safety Culture

- 4.17 SHE will support all Directors in operational or projects areas to have risk-informed SHE Improvement Plans for 2024/25. This work will be sponsored by the Chief SHE Officer.
- 4.18 We will provide facility for all Directors to assess their safety culture maturity using the SHE CMM. Directors will be mandated to use the assessments to develop culture improvement plans, including those to increase frontline Leadership visibility. This work will be sponsored by the Chief SHE Officer.
- 4.19 We will mandate all operational and delivery areas to adopt digital assurance tools to record SHE tours and use that data as an indicator in performance management. This work will be sponsored in operations and projects by the Chief Operating Officer and the Chief Capital Officer, respectively.
- 4.20 We will review relevant processes (e.g. incident investigation, disciplinary etc) and ensure where necessary that they are aligned to just and fair principles and that managers are supported to adopt these approaches. This work will be sponsored by the Chief People Officer.
- 4.21 We will develop a pan-TfL colleague safety reporting system to enable incidents and issues to be raised simply, directly and consistently across the organisation. This will be supported by the necessary business process to ensure that reports are responded to and which can be used to provide leading indicators. This work will be sponsored by the Chief SHE Officer.

Precursors and Indicators

- 4.22 We will further develop our leading indicator framework giving line of sight through all layers of governance. This work will be sponsored by the Chief SHE Officer.
- 4.23 We will develop and communicate a clearer definition of near-miss and high potential incidents that are applicable across all of our delivery areas. Where necessary, we will align data systems to these common definitions. This work will be sponsored by the Chief SHE Officer.
- 4.24 We introduced in 2018 new processes for managing and responding to safety concerns raised by customers. We are currently auditing those processes and will respond to any recommendations arising from the audit findings. We will provide an update to the Panel regarding any recommendations and actions arising.

Asset Design and Maintenance

- 4.25 We will review the business process for reporting and managing asset safety concerns across all operational asset areas. This will include clarifying if required the process for risk-based prioritisation of asset faults. This work will be sponsored by the Chief Capital Officer.
- 4.26 We will develop mandatory guidance requiring those with accountability for asset management to document updated assumptions affecting our quantified risk models (following business case / funding or other decisions that impact asset renewal and maintenance strategies) as part of our current management processes, for example cases for continued safe operation. This work will be sponsored by the Chief SHE Officer
- 4.27 We will review and clarify SHE/ Technical Engineering accountabilities of duty holders across TfL and concessionaires and identify if any additional assurance measures are required. This work will be sponsored by the Chief Capital Officer.

5 Delivering Our Plans

- 5.1 Each action described above is sponsored by a specific Chief Officer. That Chief Officer will be accountable for ensuring the action is implemented. Since many of the individual actions will require practical collaboration across the TfL value-chain, the Safety Exco will take overall responsibility for the delivery of actions.
- 5.2 It is our intention that as many as possible of these actions will have been closed, or subject to substantial progress, by the end of this financial year and we have developed a detailed delivery plan to ensure that we remain on track.
- 5.3 On a quarterly basis we will provide updates to the Panel on progress against these actions. We will never be complacent about safety or consider that no further action is required and will continue to learn from incidents that occur on our networks. The purpose of the actions described above is to support the continuous improvement of our safety controls. Over time they will become part of our business as usual approach, ensuring that we continue to put safety at the heart of everything we do.

List of appendices to this report:

None

List of Background Papers:

Sentencing remarks of Mr. Justice Fraser, 27 July 2023

Reports on the Sandilands Tram Overturning: to the Safety, Sustainability and Human Resources Panel on 22 January 2018 and the Board on 18 January 2019

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