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Simon French

Dear Simon

Overturning of a tram at Sandilands junction, Croydon, 9 November 2016

As the health and safety regulator of the rail sector, it is our responsibility to respond when incidents take place on Britain's railways and tramways. This year that has included the work that we are doing with tram operators following the publication of the RAIB's report into the tragic Croydon Tram overturning.

In this context, and to sustain confidence in the sector, it is vital that the Sandilands accident is a catalyst for positive change.

The tram sector has responded professionally to RAIB's recommendations, nine of which were directed at the whole sector including two on ORR. We have taken a key role, leading the formation of an industry steering group to establish a Light Rail Safety and Standards Board and reviewing our approach to regulating the sector.

ORR inspectors continue to work closely with and provide technical support to BTP who are leading the investigation into the incident. We are pursuing a number of our own lines of inquiry to determine the level of compliance with health and safety at work requirements. We also worked collaboratively with RAIB as it conducted its investigation.

The role of ORR

The far-reaching and cross-sector nature of RAIB's recommendations requires numerous organisations to consider potentially significant changes to their management of safety. Our knowledge of the sector, and the findings of RAIB's

report, suggested that this consideration would benefit from some direct input from ORR.

Taken together with our regulatory obligations in respect of the recommendations, we felt a clear imperative to set out our high-level expectations and to facilitate and actively monitor the industry's response – while respecting the industry's lead responsibility for managing their risks and taking safe decisions.

Our broad objective has been to ensure the tram industry takes the right actions in response to the report, in the right order and with suitable pace. We specifically want to ensure that:

- a. Reasonably practicable safety improvements are made, with a focus on improving control of risk and preventing (rather than simply mitigating) further accidents;
- b. Decisions are made based on sound evidence of the level of risk and the costs of intervention;
- c. Collaboration occurs to support consistent adoption of good practice and consensual decision-making around safety data, risk profiling and standards;
- d. Tram duty holders take collective ownership of the recommendations, but we hold them to account to make demonstrable progress.

As such, we decided that implementation should be co-ordinated proactively as a programme of work rather than managing recommendations individually as per our normal process and that ORR should take a lead role in helping the industry to do this collectively.

Bringing the industry together

Our first step was to bring the whole tram sector (owners/funders, operators and infrastructure managers of the seven systems) together for an initial conference on 22 January in Manchester to discuss and agree a joint approach to improving safety. With the input of the sector's trade body UK Tram, we also advanced proposals for a cross-industry steering group to supervise the work.

The steering group established following that conference, under the chairmanship of UK Tram, has been the cornerstone of the good collaboration and engagement demonstrated by the sector in how it is responding to RAIB's recommendations, particularly those relating to system risk analysis and establishing a safety and standards body. DfT has supported this activity and provided a commitment to provide funding to help create and operate the proposed safety and standards board.

ORR's approach to the recommendations

The scale of the Sandilands accident and RAIB challenges around some of the operating principles indicates all tram operators should review their risk assessment under ROGs 19(3). The output of the risk assessment would inform actions that are likely to address the risk that collectively recommendations 3, 4, and 5 is intending to address; and in the longer term recs 6, 7, and 8.

Recommendations 1 to 8 fall under three key groups:

- a. establish a Safety & Standards Board, conduct a review of risks, and produce guidance (recs 1 & 2);
- b. put in place enhanced control measures to reduce the likelihood of an accident (recs 3, 4, 5);
- c. and finally, put in place measures to reduce the consequence of the accident (recs 6, 7 & 8).

Recommendation 2 was considered to be the highest priority as it deals with risk across the whole tram sector. It will inform recs 3, and 6, the most relevant engineering controls that address likelihood and consequence of a 'Sandilands' type event. After rec 2, next in priority is recs 5 and 4 that have the potential to have short to medium term impact respectively. Recommendation 8 may not be reasonable practicable unless significant refurb or renewal activity, at which point we can intervene as part of proactive liaison / inspection.

Specific cross-sector safety improvements

We have been clear from the outset that some specific safety improvements can and should be made without waiting for implementation of the risk analysis and standards body work to be concluded – particularly those where shorter-term lower-cost interventions can be made. Recommendation 5 (signage) builds largely on an “urgent safety advice” issued by RAIB in the early part of their investigation, and has been substantially completed. Meanwhile, monitoring of driver fatigue has been addressed on the Croydon system through deployment of a monitoring device already in use on TfL’s bus operations. Operators are also considering simple measures to address Recommendation 7 (emergency lighting).

Addressing other recommendations will require longer-term investment and more detailed consideration of costs and benefits. Recommendation 3 (automatic tram protection), Recommendation 6 (passive safety of windows) and Recommendation 8 (emergency evacuation) all impact directly on the specification, procurement, design or modification of tram systems and their vehicles. As such, we will need to explore further the costs of implementing the recommendations and the likely reduction in risk that would follow. Collaborative effort, supported by the use of suitable expertise external to the sector, needs to be substantially advanced before the reasonable practicability of how to implement these recommendations can be determined by the sector’s duty holders. It is now clear that the time the industry requires to develop the evidence base for some of these more significant decisions will extend beyond the end of 2018.

Reviewing the regulatory framework

Since the accident at Croydon, we have been considering how we regulate the tram sector. After the accident, we immediately carried out a Prior Involvement Review to see what we could learn from the incident in terms of our regulatory role. That review, carried out by a senior inspector who had no previous involvement with the **Head Office: One Kemble Street, London WC2B 4AN T: 020 7282 2000 F: 020 7282 2040 www.orr.gov.uk**

tram sector, was presented to the ORR Board and given to RAIB to complement your investigation.

As well as addressing RAIB's specific recommendation that we review the regulatory framework and our supervision approach, our primary objectives are to:

- remain in a strong position to ensure reasonably practicable safety improvements are pursued by the whole tram sector in a timely way.
- ensure demonstrable progress is made towards establishing a sustainable approach to ensuring greater collaboration and standardisation in the sector.
- assure ourselves we have the right supervision strategy in place.

As explained in our report (Annex A), we have also carried out a review of the regulatory framework in the sector. While we remain of the view that the framework is sufficiently robust to support implementation of the safety improvements demanded by the Sandilands accident, we have also identified some proportionate recommendations to strengthen it.

Our plans for 2018/19 now include resource and a structured programme to carry out more proactive supervision of the tram sector, based on key criteria from our Risk Management Maturity Model that is already used in the wider rail sector. Before the end of this year, we will also develop and publish a revised strategic risk chapter for trams based on our existing knowledge, evidence and risk analysis.

Wider ORR activity on tram safety

As well as playing a key role in driving forward implementation of the Sandilands recommendations, we continued our proactive inspection of the sector during the year, as I mentioned in our annual report. British tramways continue to show steady signs of improvement in the health and safety culture within their organisations. Our finding included examples of positive approaches to managing rosters and fatigue, and improvements to the management of driver competence.

However the sector's progress in gathering and sharing reliable consolidated incident and accident data remains slow – and well behind the arrangements that exist on the mainline railway. We see this as one of the key deliverables in the work of the industry's proposed safety and standards body. Learning from how this is done in other related sectors is critical and will help develop an improved understanding of the level of risk and the effectiveness of control arrangements. While the sector puts in place its own arrangements to capture and analyse incident data, we are reviewing how to best utilise RIDDOR data with greater granularity for tramways.

Next steps

It is now two years since the Sandilands accident and it remains ORR's priority to ensure the safety lessons are learned.

The tram industry has made a positive start towards making the long-term improvements that are necessary. We will continue to participate in and monitor their activities to ensure that sustainable approaches to collaboration, standardisation and risk analysis are realised during 2019.

In conclusion, as we said in our Annual Health and Safety Report “The tram sector is responding professionally to the challenges laid down by RAIB’s report into the tram overturning at Sandilands in 2016. The sector recognises that the creation of a safety and standards body and a better understanding of risk are important enablers to help it target effort to achieve greatest safety risk benefit. We expect this professional risk based approach to continue in 2018-19, assisted by appropriate support from key stakeholders”.

We will continue to play an active part to ensure progress is achieved at the right pace.

Yours sincerely



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