

Recommendation(s) Status: Fatal accident at Piccadilly Gardens, Manchester

This report is based on information provided to the RAIB by the relevant safety authority or public body.

The status of implementation of the recommendations, as reported to us, has been divided into six categories:

Key to Recommendation Status

Implemented:	All actions to deliver the recommendation have been completed.
Implemented by alternative means:	The intent of the recommendation has been satisfied in a way that was not identified by the RAIB during the investigation.
Implementation ongoing:	Work to deliver the intent of the recommendation has been agreed and is in the process of being delivered.
In-progress:	The relevant safety authority has yet to be satisfied that an appropriate plan, with timescales, is in place to implement the recommendation; and work is in progress to provide this.
Non-implementation:	Regulation 12(2)(b)(iii) = recommendation considered and no implementation action to be taken.
Awaiting response:	Awaiting initial report from the relevant safety authority or public body on the status of the recommendation.

RAIB concerns on actions taken by organisations in response to recommendations are reflected in this report and are indicated by one of the following:

-  The red triangle shows recommendations where the RAIB has concerns that no actions have been taken in response to a recommendation.
-  The blue triangle shows recommendations where the RAIB has concerns that the actions taken, or proposed, are inappropriate or insufficient to address the risk identified during the investigation.
-  The white triangle shows recommendations where the RAIB notes substantive actions have been reported, but the RAIB still has concerns.

Note: The tables which follow, report the status of recommendations on 31 December 2015. In some other cases the end implementer has already sent information to the relevant safety authority about the actions it has taken, or proposes to take and the safety authority is considering whether it is satisfied that those actions and the associated timescales are accepted.

Number/ Date/ Report No/ Inv Title / Current Status	Safety Recommendation	Summary of current status (based on latest report from the relevant safety authority or public body)
<p>1 05/06/2011 08/2012</p> <p>Fatal accident at Piccadilly Gardens, Manchester</p> <p>Status: Implementation ongoing</p>	<p>The aim of this recommendation is to improve the detail of pedestrian injury data to better understand the role of tram front end design in minimising injury.</p> <p>UK tram operators should work together to improve the data collection on tram front end collisions with pedestrians. This is to include greater detail on the type and severity of any injury received as far as possible, and the likely points of contact with the tram (paragraph 82).</p>	<p>UK tram operators has outlined the actions to be taken in response to the recommendation. ORR are seeking further information.</p>
<p>2 05/06/2011 08/2012</p> <p>Fatal accident at Piccadilly Gardens, Manchester</p> <p>Status: In-progress</p>	<p>The aim of this recommendation is to better understand the design of tram front ends and their potential for injuring pedestrians in collisions.</p> <p>UK tram operators in conjunction with UKTram (as a representative body of UK light rail operators), and in consultation with tram owners, should undertake research into the potential for the reduction of injuries to pedestrians involved in front end collisions with trams. Operators should understand the likely ways in which pedestrians can come into contact with the fronts of trams, and the severity of any consequential injuries. Should this research show that it is appropriate to implement design changes, either to existing trams or emerging new designs, these should be done (paragraph 88b).</p>	<p>UK Tram has indicated it is involved in on-going discussion of EU wide standards and that through these means will participate in any discussion of regulatory aspects leading to future EN standards for new vehicles. Some tram operators have indicated they would be willing to participate in research, however UK Tram has indicated that it does not intend to carry out any specific research. ORR will explore further with a view to forming a common understanding. RAIB is concerned that the route by which this recommendation will be addressed remains unclear.</p>