Tebay report and recommendations

Rail Safety and Standards Board (RSSB) has issued its formal inquiry report into the circumstances that led to the fatalities of four track workers and injuries to five others at Tebay in Cumbria on 15 February 2004.

The formal inquiry was convened with an independent panel and included observers from the involved parties and trades unions. As with all such inquiries the panel's task was to establish the immediate and underlying causes of the accident and make recommendations to prevent or reduce the risk of recurrence.

Sequence of events

A work party was engaged in removal of scrap rail following rail renewal work. This task involved the use of a road-rail excavator and two rail mounted trailers.

The vehicles had been put on the line earlier and had been loaded with scrap rail. On return to the access point at Scout Green the excavator was taken off the track and commenced unloading of the trailers using its ‘log grab’. Attempts to drag the first length of rail off the trailer caused it to move slightly. This caused pieces of timber being used as chocks, to fall or be dislodged from the railhead. The trailer started to roll south on the 1 in 76 falling gradient towards Tebay.

Attempts to stop the trailer were unsuccessful and it ran out of the Scout Green worksite, then out of the possession, gathering speed. No warning reached a gang working at Tebay, the next worksite, some 3.25 miles (5.22km) to the south of Scout Green and in a separate possession, before the runaway trailer arrived.

Members of the gang working on the track at Tebay did not detect the approach of the trailer. Several were struck, resulting in four fatalities and four others suffering injuries, in one case serious. The trailer also collided with two trolleys in use at the Tebay worksite and these eventually brought the trailer to a halt some miles further on.

The emergency services were notified and attended, together with HSE/HMRI, and the injured were taken to Lancaster Infirmary.

Conclusions

The formal inquiry panel concluded that the immediate cause of this accident, and the consequent death of the four track workers, was that a trailer ran away from a worksite in an adjacent possession due to the absence of functional parking brakes on the trailer when left unattached on a 1 in 76 falling gradient.

The panel also concluded that the following were deemed to be underlying causes:

- The disturbance of the trailer whilst being unloaded, which permitted the means of chocking it to fall off the railhead
- The disablement of the brakes resulting from an earlier application of an excessive hydraulic pressure
- An absence of clear, explicit and practical instructions for checking the effectiveness of trailer parking brakes both before leaving the depot and before commencing operation at Scout Green
- A lack of awareness on the part of the machine controller or
operator, of the magnitude and length of the gradient at Scout Green

- The pressures arising from the use of very short lead times during the final stages of the planning process leading to an unwillingness to refuse to supply plant when approved and serviceable plant was not available.

Recommendations

The report makes recommendations for improvements in a number of key areas and these are summarised as follows:

- Development of clear instructions for use of trailer parking brakes on the track, coupled with a functional test whenever trailers are first placed on the track
- A system should be developed to pre-determine validity of engineering acceptance certificates for usage of on-track plant, to avoid the necessity for on-site verification
- Engineering acceptance certification should be automatically withdrawn if re-certification for mandatory modifications has not occurred by compliance date
- A database or library should store relevant compliance and certification details for all road-rail vehicles and trailers, and other wheeled attachments capable of moving unaided when on the track
- A simple preventative system should be introduced to mitigate the risk of coupling road-rail vehicles and trailers where the hydraulic pressure produced by the road-rail vehicle exceeds the safe working pressure of the trailer
- Hydraulic delivery pressures should be checked at regular 3-month intervals after any changes to the system, with results recorded
- Arrangements should be introduced to provide supplementary monitoring and mentoring of newly qualified machine staff
- Arrangements for common competence standards for machine controllers and operators should be implemented
- The process for assessing small and newly established companies wishing to be considered for work should be reviewed, with the scope of audits more closely defined
- Systems for the supplementary monitoring and mentoring of new suppliers of hire plant in the early period of their use should be introduced
- A study should be carried out to identify tools and guidance for managing safety interfaces between companies with a view to producing practical tools and good practice guidance in this area
- The Hazard Directory should contain gradient details where the severity and/or length of these merit attention.

Rail Safety and Standards Board has issued a full copy of the report to each member of the Railway Group and the other organisations involved in the accident. All recipients of the report need to review the findings and recommendations and take actions where appropriate to address identified deficiencies within their own systems. Rail Safety and Standards Board will track the industry’s response to this report.