Fact sheet – Margam, failure in leadership?

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Introduction

Informal working practises that had eroded safety over a period of time and the lock of a site look out were among key factors that led to the death of two track workers at Margam near port Albert on 3rd July 2019. Gareth Delbridge and Michael Lewis were both killed after being struck by a GWR intercity express train while working on a set of points alongside a third worker, who was severely traumatised by the incident.

The report is summarised below and describes the informality in the working procedures employed in particular around the use of safe work packs and who is responsible for safety on site, which meant the group was not working in accordance with the requirements laid down. The RAIB continue to say, "the informal ways of operating had almost certainly become normalised over a period of years, and have not been monitored or addressed by managers." Furthermore the strong sense of identity within the group made it less likely working practises would be challenged by each other. This sense of identity was highlighted many years ago in the flight deck of commercial aircraft where junior First Officers felt unable two challenge senior Captains, even when they weren't totally sure safety was correct.

It is crucial that senior managers are alert to these human factor elements and ensure that procedures are aligned with working practises and that the safety margin has not been 'normalised out' and that it is okay to challenge anyone in the organisation where safety is concerned. (See Fact sheet – the quality of maintenance)

How safely are your procedures being followed – how confident are you that 'Margam' couldn't happen to you?

RAIB Report - Summary

At around 09:52 hrs on Wednesday 3 July 2019, two track workers were struck and fatally injured by a passenger train at Margam East Junction on the South Wales main line. A third track worker came very close to being struck. The three workers, who were part of a group of six staff, were carrying out a maintenance task on a set of points. The driver made an emergency brake application about nine seconds before the accident and continued to sound the train's horn as it approached the three track workers. The train was travelling at about 50 mph (80 km/h) when it struck the track workers.

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The accident occurred because the three track workers were working on a line that was open to traffic, without the presence of formally appointed lookouts to warn them of approaching trains. They were carrying out a maintenance activity which they did not know to be unnecessary. All three workers were almost certainly wearing ear defenders, because one of them was using a noisy power tool, and all had become focused on the task they were undertaking. None of them was aware that the train was approaching until it was too late for them to move to a position of safety. Subsequent acoustic measurements have shown that they would not have been able to hear the train's warning horn.

The system of work that the controller of site safety had proposed to implement before the work began was not adopted, and the alternative arrangements became progressively less safe as the work proceeded that morning and created conditions that made an accident much more likely.

RAIB's investigation found several factors which led to this situation, relating to the work itself, the way the safe system of work was planned and authorised, the way in which the plan was implemented on site, and the lack of effective challenge by colleagues on site when the safety of the system of work deteriorated.

The investigation also considered why Network Rail had not created the conditions that were needed to achieve a significant and sustained improvement in track worker safety. Four underlying factors were identified:

- Over a period of many years, Network Rail had not adequately addressed the protection of track workers from moving trains. The major changes required to fully implement significant changes to the standard governing track worker safety were not effectively implemented across Network Rail's maintenance organisation
- Network Rail had focused on technological solutions and new planning processes, but had not adequately taken account of the variety of human and organisational factors that can affect working practices on site
- Network Rail's safety management assurance system was not effective in identifying the full extent of procedural non-compliance and unsafe working practices, and did not trigger the management actions needed to address them
- Although Network Rail had identified the need to take further actions to address track worker safety, these had not led to substantive change prior to the accident at Margam.

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Recommendations

RAIB has made eleven recommendations in this report. Nine of these are addressed to Network Rail and cover:

- improving its safe work planning processes and the monitoring and supervision of maintenance staff (three recommendations)
- renewing the focus on developing the safety behaviours of all its front-line track maintenance staff, their supervisors and managers
- establishing an independent expert group to provide continuity of vision, guidance and challenge to its initiatives to improve track worker safety
- improving the safety reporting culture
- improving the assurance processes, the quality of information available to senior management, and processes for assessing the impact of changes to working practices of front-line staff (three recommendations).

A further recommendation is made jointly to Network Rail, in consultation with the Department for Transport, relevant transport authorities, the Office of Rail and Road (ORR) and other railway stakeholders, to investigate ways to optimise the balance between the need to operate train services, and enabling safe track access for routine maintenance tasks.

The final recommendation addresses an observation noted during the investigation and is not related to the cause of the accident. It is addressed to the Rail Delivery Group, in consultation with Network Rail and RSSB, and recommends research into the practicability of enabling train horns to automatically sound when a driver initiates an emergency brake application.

RAIB has also noted two learning points: one reminds staff to only carry out maintenance on insulated rail joints when the relevant line has been closed to traffic, and the other reminds companies to update staff on revised maintenance practices as railway assets are modernised.

Simon French, Chief Inspector of Rail Accidents said:

The death of the two track workers who were struck and killed by a train at Margam was a tragic loss for their families and friends. It has also had a profound effect on all of us at RAIB, and those who died and all those who were close to them, are in our thoughts. The railway is like a family, with a distinct culture all its own, and we all feel deeply the loss of colleagues.

This accident has reinforced the need to find better ways to enable the safe maintenance of the railway infrastructure. The areas that need to be addressed to improve the safety of track workers have been repeatedly highlighted by 44 investigations carried out by RAIB over the last 14 years. The most obvious need is for smart and accurate planning to reduce the frequency with which trains and workers come

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into close proximity, while also meeting the need for access to assets on an increasingly busy railway system.

I believe it is essential that Network Rail addresses the fundamental requirements that have been highlighted by RAIB's investigations over the years. These include:

- developing leadership skills and involvement of the site team in the planning process, including the identification of site hazards and the local management of risk
- better management of people who work on the track, including supervision and assurance, that will make sure correct working practices are in use, and to identify areas for improvement
- greater use of technology to control access to the infrastructure, to provide warnings of approaching trains or to protect possession limits.

The railway has a lot to do ***to cultivate and support a generation of leaders*** who are able to make a real difference to track safety. In recent years the industry has launched projects intended to achieve this, but they have not always been successful. It is frustrating that the railway has been unable to carry people with it in its attempts to bring about real change.

I remain hopeful that the rail industry will find a way to address these thorny and persistent issues. There is now a real sense that things must change. We've come a long way since the days when fatal accidents involving track workers were commonplace. However, it's now time for some clear thinking on how best to further reduce the risk to our colleagues who inspect, maintain and renew the railway's infrastructure.

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