rightrack

Issue 28 **Summer 2019**

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Hello, and welcome to issue 28 of Right Track!

In this issue, we've got an update on the industry's health and safety performance in the year to April 2019. We also look at some of the key risks facing us as we go to work every day, including possession management, road driving risk and the use of mobiles.

There's a certain romance about steam trains, but how can rolling stock from a bygone era stay safe on the operational railway of the 21st century? Turn to page 8 to find out how those risks are being mitigated. And in an era when we recognise the importance of mental health, CIRAS reminds us that we shouldn't neglect our own mental health when looking after other people.

In this issue's RAIB report, we focus on the self-evacuation of passengers at Lewisham in March 2018; what went wrong, and how we can make sure it doesn't happen again.

As ever, we would love to have your feedback on any of the articles in this issue. If you have any comments, please email us at **righttrack@rssb.co.uk**.

RSSB A Better, Safer Railway

Right Track can be downloaded from the RSSB website: www.rssb.co.uk

Right Track is produced by RSSB through a cross-industry Editorial Board. It is designed for the people on the operational front line of the national mainline railway, yards, depots and sidings, and London Underground. Their companies are represented on various cross-industry groups, including the System Safety Risk Group, managed through RSSB.

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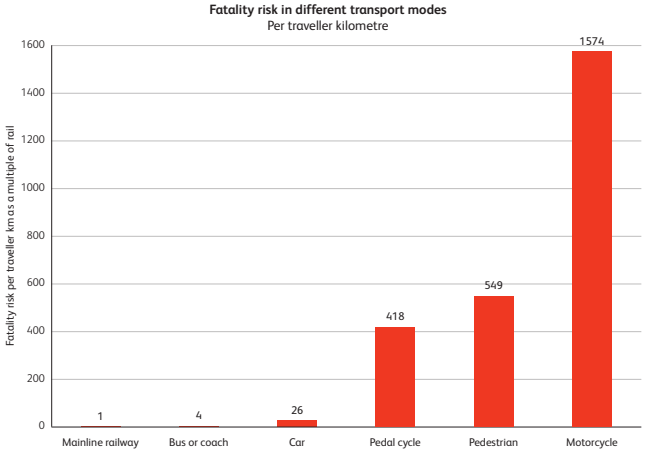
Right Track is designed to share news and views from individual companies in a positive way. However, the views expressed in Right Track are those of the contributing authors; they do not necessarily reflect those of the companies to which they are affiliated or employed, the editors of this magazine, the magazine's sponsors - the System Safety Risk Group - or the magazine's producers, RSSB (Rail Safety and Standards Board).

State of the Railways

Each year, RSSB crunches numbers and analyses data to tell us how the railways are doing in keeping our colleagues, our passengers and the general public, safe. We can then tell where we're reducing risk, where we need to put more resources – and what emerging risks there are. This year, we've merged this with information from the Learning from Operational Experience programme, and the Leading Health and Safety on Britain's Railways strategy. **The Annual Health and Safety Report** (AHSR) covers the 12 months from April 2018 to March 2019.

Rail remains one of safest ways to travel. Indeed, ours is the safest of the top 10 biggest railway systems in the EU, and there hasn't been a train accident involving on-board fatalities to passengers or the workforce for over 12 years.



Yet safety is not a stable state: one accident can destroy a record, and – more importantly – destroy lives. This is why the rail industry monitors not only accidents, but their precursors: close calls, signals passed at danger, broken rails and so on; all in a bid to help everyone to be able to travel and send goods safely.

Safety overview

The report covers the full railway risk profile, from workforce health and wellbeing to train accident risk, from trespass to fatigue.

In some areas, there is evidence that industry investment and focus has driven down risk. For example, fatalities at level crossings were at a record low. And overall the industry continues to satisfy the safety requirements placed on it by the Railway Safety Directive, which is to maintain s afety and improve it where practicable. However, in some areas, improvement has slowed; or there are signs that the trend is going in the wrong direction.

Most fatalities on the railway are suicides. During 2018/19, 271 people died as a result of suicide or suspected suicide; an increase on the 250 recorded the previous year.

There were no passenger or workforce fatalities in train derailments or collisions between trains but, including trespassers, 40 people died as a result of accidents, while 548 received major injuries, which is an increase on recent years.

Track worker safety

Around one-third of all risk to the rail workforce is borne by staff working on or about the running line. The tragic incident at Margam in July 2019 is a reminder of this, though it isn't included in these statistics because it occurred after the year end. We await the findings of the official investigation, and will factor them in to future thinking.

There were two workforce fatalities in 2018/2019. Both were infrastructure workers. On 5 June 2018, a contractor died after falling from a ladder at Bearsden station. On 6 November 2018, a track worker was struck and killed by a train at Stoats Nest Junction. Before this, it had been almost five years since a track worker was struck and killed by a train.

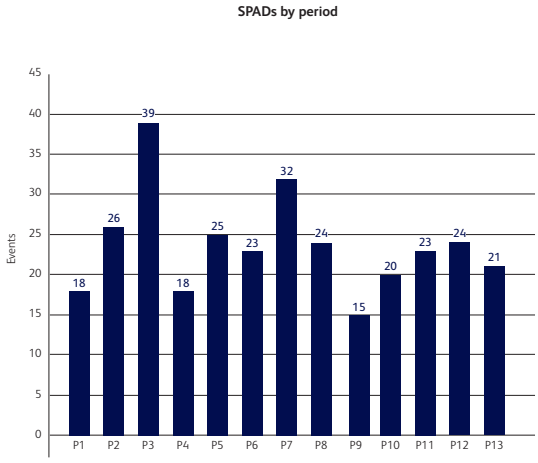
Yet during that period, the Rail Accident Investigation Branch (RAIB) notes that there were 'too many near misses' where track workers had to 'jump for their lives at the last moment'. In the case of the near miss at Egmanton in October 2017, a multi-fatality accident was avoided with just two seconds to spare.

There are many causes behind incidents of this type. Staff on the track might lack the requisite location knowledge; the 'workpack' can be wrong; trains can be signalled onto lines blocked for maintenance. RAIB has also raised concerns ranging from the quality of leadership on site, to the standard of lookout protection, to the management of 'zero hours' labour.

Signals Passed at Danger (SPADs)

SPADs were the immediate causes of Southall (1997) and Ladbroke Grove (1999), two high-profile, multi-fatality accidents that called into question many of the railway's safety management systems at the time. Both gave the industry pause to take a closer look at the causes of SPADs, the precursors to SPADs and the risks that surround them.

When this work began, there were over 500 SPADs a year; last year there were 307 (on a much busier railway). The professionalism of train drivers, the relevance of 'professional' driving policies and practices, and the success of the Train Protection & Warning System (TPWS) combined to achieve this in the decade following Ladbroke Grove.



Newswire

2 March, Romania: Passenger train derailment between Augustin and Racos

At 07:45 (local time), the locomotive hauling a passenger train derailed between Augustin and Racos. There were no reported injuries.

2 March, US: Freight train derails near Carrington, no reported injuries.

At around 08:00 (local time), a freight train derailed near Carrington, North Dakota. There were no reported injuries, but the local hazards team was summoned as it was thought some of the wagons could have contained ammonia.

4 March, Czech Republic: Collision between Ronov nad Doubravou and Žleby injures 4

At 12:23 (local time), a passenger train collided with a freight between Ronov nad Doubravou and Žleby. Two passengers and two members of staff were injured.

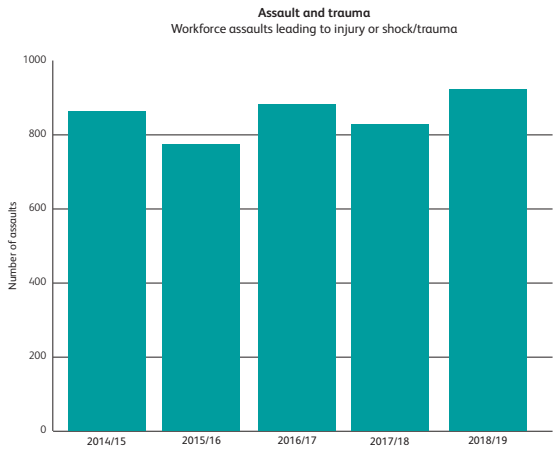
Although SPAD numbers and SPAD risk have broadly flatlined over the past ten years, both increased over 2018/19. There was a particular peak in SPADs during Period 3, around the time of major timetable change and associated disruption. A detailed review of the causes found that there was no single factor behind the spike, but contributory issues included vegetation management, new signalling schemes, the weather and the new timetable

More generally, industry collaborated to launch a new SPAD risk reduction strategy in 2017. This has not been embedded consistently across companies, so we're looking at how we can improve uptake. The industry, led by Network Rail, is also taking a fresh look at train protection arrangements to gain early benefits from, or make improvements prior to, full roll-out of an in-cab signalling system known as ERTMS (the European Railway Traffic Management System).

Although SPADs are relatively low in frequency, they still have the potential for high-consequence loss. On 7 March 2015, we came worryingly close to that situation, when a steam-hauled special passed the signal protecting Wootton Bassett Junction at danger, fouling the junction soon after an HST had passed through.

Assault and Trauma

Train travel is a joy; but sometimes the selfishness of some can make a journey less enjoyable than it might be. And because more and more people are travelling, it can mean we get in each other's way more often than we'd like. That can lead to tension, which usually leads to irritation and perhaps a snappy comment.



But in extreme cases, it can lead to assaults. Analysis shows there's a correlation between football fixtures and physical assaults. Alcohol and mental health issues can also be a catalyst under certain circumstances. Fare evasion, anger over delays and alcohol consumption can also be in the causal chain of many incidents.

Assaults account for 8 % of the total risk on the mainline railway (not including suicide); 7 % of that is for other passengers, and 1 % for staff. But there appears to be a gradual rise in workforce assaults, especially towards station staff. As part of an industry research project last year, a survey of customer-facing staff at train operating companies found that 94 % had experienced workplace abuse in the past twelve months, and 69 % experienced this every week.

With all this in mind, RSSB – drawing on BTP data and information – monitors the situation closely to inform industry of the trends. The Rail Delivery Group's National Workplace Violence Group is leading on strategies to reduce workplace violence across the industry.

Find out more

The full AHSR is available on the RSSB website. Go to www.rssb.co.uk and search "Safety Performance Reports". You'll be able to download the 202-page report from that page. There's also a video with Ali Chegini, RSSB's Director of System Safety and Health, which explains the key points.

What do you think are the biggest safety risks facing the railway today? Let us know at rightrack@rssb.co.uk.

5 March, Czech Republic: Passenger train collision at Brno hlavní nádraží station

At 08:05 (local time), two regional passenger trains collided at Brno hlavní nádraží station. Two members of staff and 20 passengers sustained minor injuries. Initial investigations suggest the cause to have been an error on the part of one of the drivers.

13 March, US: High winds blow freight off trestle bridge in New Mexico

At around 11:00 (local time), 26 empty wagons in a 73-wagon freight derailed in high wind conditions and fell from a trestle bridge near Logan, New Mexico. There were no reported injuries.

15 March, Czech Republic: Staff member injured during shunt move at Rájec-Jestřebí

At 14:10 (local time), a member of staff was injured during a shunting operation at Rájec-Jestřebí. Initial reports suggest he tripped on wooden logs that had been left too close to the track.

On the Road to Safer Freight

As the railway has become a safer work environment, it has begun to expose the significance of work-related road risk. In the 10 years to 2018, there were 21 workforce fatalities; 11 of these (52%) were work-related road deaths. This makes road traffic accidents the biggest contributor to workforce fatalities in the rail industry. If you are in a road vehicle for work, even if you are being driven by somebody else, this puts you at risk. We all need to take responsibility for helping to reduce this risk.

Driving for work is one of the highest risk activities most employees ever undertake, in almost every industry. In 2017, our industry published its strategy for working together - Leading Health and Safety on Britain's Railways (LHSBR). This strategy identified road risk as one of the 12 priority areas for improvement. The industry established a Road Risk Group (RRG) to work together and reduce this risk. This group works across all sectors of the industry to help improve management of this significant and often under-considered risk.

Driving for Better Business

Driving for Better Business

DfBB is a government-backed programme to help employers in both the private and public sectors reduce work-related road risk, decrease the associated costs and improve compliance with current legislation and guidance.

Freight staff cover more than 13.2 million miles annually in company road vehicles. The National Freight Safety Group (NFSG) responded to the LHSBR strategy by conducting a joint risk prioritisation process, which was facilitated by RSSB. Out of this came the Integrated Plan for Freight Safety. Road risk was identified as one of the 'Top Five' priority areas for the sector. So the NFSG set up the Freight RRG, and work began to 'reduce the risk to rail employees when travelling by road vehicle'. The aim: a collaborative approach across the freight industry, including a representative from Highways England's Driving for Better Business (DfBB) programme (see Right Track 27), to identify and share good practice both inside and outside the rail industry.

When this group started, no common standards existed to guide or govern the freight industry on road-related risks, or how to identify, manage or mitigate these risks. We're good at identifying road incidents, but more work is needed to identify road near misses. Not all road incidents are investigated, and many companies do not monitor data on numbers of Notices of Intended Prosecution or take action when they arrive. The group has spent some time identifying areas to capture data, data sharing opportunities, and data that the industry finds difficult to capture.

The group is working with the RRG, RSSB and DfBB team to provide focussed, practical strategies that the rail industry can use to reduce road risk. It's brought consistency and guidance to the freight road risk group, and everyone sees the benefit. The group's work directly influenced the introduction of the DfBB 7-steps to excellence to the railway. But the group isn't resting on its laurels: its aim now is to encourage each freight company to become a DfBB Champion.

Freight train drivers cover more than 2.5 million miles annually in taxis, using various providers; and the industry is not well regulated. The Freight RRG intends to produce guidance on taxi procurement and use, so that freight drivers know the taxi they're getting into is safe. This will also be the outcome of another key area of work, to develop a common car policy and handbook that can be tailored by each freight company.

Many companies make use of what are known as 'grey fleet' vehicles: employees driving their own vehicles for work. We know it happens, but we have no idea of its extent. If you drive your own vehicle for work:

- Are you properly insured to drive for business?
- Do you carry out daily vehicle checks?
- Does your company have a 'grey fleet' policy?
- Do you know it and comply with it?

Highways England believes that about one-third of all major road traffic accidents involve people who are driving for work, but the quality of existing data is poor. The risk to grey fleet drivers may be even higher than we think.

With so much still to do to ensure we stay safe whenever we're at work, freight RRG will continue its work for a long time. It may produce a framework in line with the ORR's Risk Management Maturity Model (RM3) to measure maturity in managing road risk. It works closely with the industry-wide RRG and plays a key part in helping to promote good collaboration across the other sectors.

We're all busy at work, but the freight sector has shown that it's committed to delivering real change; change that will lead to fewer injuries, and more of us going home safe every day.

Find out more

For more information about LHSBR strategy, search Leading Health and Safety on Britain's Railways RSSB in your browser.

Go to www.rssb.co.uk and click on the "Groups and Committees" tag for more information on the groups doing this work, including:

- Road Risk Group
- National Freight Safety Group

Heritage Rail

Trying to run a 20th century service on a 21st century railway

'Everybody loves the sound of a train in the distance…' as Paul Simon once wrote. Not just in the distance: nearer is better, and if it's a steam train, then the pleasure is multiplied. There is an undeniable, unescapable attraction for nostalgia in the UK - and none more than that for the so called 'golden age of steam'. There's no getting away from it: nostalgia is here to stay.

The heritage sector is a multi-million-pound business, which recreates the railways of a bygone age, mostly for touristic purposes. However, the railways of a bygone age come from the past, and 'they do things differently there', as L. P. Hartley's The Go-Between said, likening it to a foreign country.

But therein lies a problem: the way that things were done differently in the past is often not acceptable on today's railway. Safety management changes, evolves, improves; societal expectations also change. What was acceptable in the 1950s, when over 1,500 staff and 300 passengers were killed in railway disasters (think back to Harrow and Wealdstone in 1952), would cause outcry today.

How is it possible to manage safety to today's standards, but using yesterday's trains? What are the issues facing the heritage sector? What's being done about it? Some good questions. So how about some good answers?

First, doors. The vast majority of passenger trains running on the mainline railway have sliding or plug doors: doors which can be closed remotely by the traincrew, then proved to be closed and locked. Any slam doors remaining on the mainline railway have been fitted with central door locking (CDL), which prevents them from being opened (deliberately or inadvertently) at the wrong time. On heritage stock, it's a different story. Old carriages, designed and built long before CDL was ever conceived, are still in regular use. The usual risk-control method can be crude, such as brenton bolts and stewards to oversee the doors. However, this is changing: after 2023 any stock running on the mainline railway will have to be equipped with CDL. This issue is being linked to the removal of opening droplight windows. There have been numerous reported incidents of passengers leaning out of droplight windows, some with fatal consequences such as the fatality at Twerton on 1 December 2018.

Newswire

17 March, Democratic Republic of the Congo: 30+ killed when freight derails in Kasai region

A freight train derailed at Bena Leka, in the Kasi region of the Democratic Republic of the Congo. An estimated 32 people were killed, many of them children. They had been travelling by hanging on the sides of the wagons, a number of which fell into the nearby Luembe River.

18 March, Hong Kong: Two subway trains collide during signalling system test, both drivers injured

Early on 18 March 2019, two empty subway trains collided at low speed between Central and Admiralty stations. Both drivers required hospital treatment. The accident occurred during the testing of the line's new signalling system. According to the Hong Kong government's Land Transport Authority, the latter was caused by a 'software logic issue' that prevented communication between on-train and trackside equipment.

Image courtesy of Owen Northwood

Image courtesy of Roger Badger

Secondly, effluent discharge. The earliest passenger vehicles did not have toilet facilities; and when they were fitted, they were setup to discharge straight out of the bottom of the train and onto the track, as well as any hapless individuals who happened to be in the vicinity. Even the royal train and its royal flush was no different. In 1982, the first vehicles with toilet retention tanks came into service: 317 units on the appropriately named 'Bed-Pan' line (Bedford to St Pancras); but many continued to discharge directly onto the track, and to this day some still do. This is changing: Network Rail has a commitment to ensure that effluent discharge is eradicated from the network by 2020. Thereafter, trains will no longer be permitted to dump onto the track - including heritage trains. This means that on-board toilets must either be taken out of use (which is impractical on all but the shortest journeys), or retention tanks must be fitted.

Thirdly, corrosion. Heritage vehicles aren't getting any younger; many are more than half a century old. Over the years they have been subjected to the consequences of corrosion, the ravages of rust and the depredations of degradation. Modern trains are built to a far higher standard of crashworthiness, as has been demonstrated by accidents such as at Grayrigg where the improved standards helped preserve the lives of many passengers. Heritage vehicle maintainers must be very careful that they take steps to make sure that their carriages are in the best possible condition. This will be a difficult path to tread, between keeping the nostalgic element and keeping passengers safe.

The Office of Rail and Road (ORR) is showing a great interest in these issues and will be keeping a keen eye on how the heritage sector deals with them. It is likely that the number of heritage vehicles that are cleared for use on the mainline will decrease drastically, leaving a smaller core of carriages to be used for those trains which recreate the railways of a bygone age.

Find out more

Three new Rail Industry Standards have been written for running heritage trains on the network:

- RIS-3440-TOM Operation of Heritage Trains
- RIS-4472-RST Engineering Requirements for Steam Locomotives and other Heritage Rail Vehicles
- RIS-2003-RST Certification and Registration of Heritage Rail Vehicles operating on the GB Mainline Railway.

Find them in the Standards Catalogue on the RSSB website.

Image courtesy of Roger Badger

22 March, India: Express catches fire near Jalpaiguri, two passengers killed

On the afternoon of 22 March 2019, a Dibrugarh-bound passenger train caught fire, killing two passengers. Many other passengers were injured as they tried to jump to safety.

10 April, China: At least four killed when freight derails and strikes house in Henan

Around 22:00 (local time), a freight carrying aluminium derailed in Gonygi, Henan province. The train struck a house near the railway line. The train's four crew members were killed; two people who lived in the stricken house were said to be missing.

24 April, US: Wagons carrying ethanol catch fire in Fort Worth, Texas

Just before 01:00 (local time), a freight train carrying ethanol derailed in Fort Worth, Texas, a number of the wagons subsequently catching fire. Several homes near the crash site were evacuated. The flames later spread to a nearby outbuilding. There were no reported injuries.

RAIB report brief – Lewisham vs the Beast from the East

In 2018, the UK experienced some of the worst winter weather in decades. Snow, ice and plummeting temperatures impacted schools, businesses and transport. On the railways, this lead to an uncontrolled evacuation near Lewisham.

At 18:41 on 2 March 2018, a passenger climbed down from a stranded train near Lewisham when trains were still running on the adjacent line and the conductor (3rd) rail remained live. By the time the passengers started disembarking, the train had been held at a signal outside the station for over an hour because the train in front was having difficulty drawing power, due to ice on the conductor rail. The train had stopped across a junction, causing the train behind it to block another junction. As a result, a further seven trains were unable to move.

The current was turned off in the immediate vicinity within about three minutes of the driver telling the signaller that a passenger had left the train. However, while the electrical control operator (ECO) was finalising the isolation, three more passengers got off and crossed lines that may have still been live. A further 30 or so self-evacuated another train, again possibly when the conductor rails were still live. Within 45 minutes, more passengers had self-evacuated at least two other trains.

RAIB said that the uncontrolled nature of the self-evacuations delayed the reinstatement of the electrical current, and resulted in trains being stranded for around four and a half hours. Although no-one was seriously injured, conditions on all the stranded trains became very difficult for everyone. Indeed, the crowded conditions, coupled with the lack of toilet facilities, were the catalysts behind the original self-evacuation.

Weather forecasts had warned Network Rail and the operator, Southeastern, that there was a high risk of ice forming on the conductor rail. They'd implemented arrangements to manage it, but they had been unsuccessful for the following reasons:

- Unlike many locations in Kent, the conductor rails in most of south-east London are not heated.
- The last application of anti-icing fluid was about 19 hours before the incident, and it's likely to have stopped being effective.
- Due to the implementation of a special timetable, and previous train delays, no train had operated over the affected route for 90 minutes (if trains had run during this period they would have removed ice from the conductor rail and helped prevent it accumulating).
- A near-by MOM, trained and equipped to de-ice the conductor rail, was not alerted for 40 minutes.

RAIB identified the following key learning points:

- This investigation demonstrates the importance of timely application of emergency signalling rules and of signallers being familiar and confident in their use. This should include training to ensure familiarity with all elements of the Rule Book, and opportunities to apply such regulations where infrequent application may otherwise create barriers to invoking them.
- It also demonstrates the importance of signallers and staff in railway control centres using appropriate protocols when using voice communications. These include the need for callers to confirm that they are speaking to the relevant responsible individual.

Because the emerging situation at Lewisham wasn't recognised as a serious incident quickly enough, key decisions weren't made to define and implement plans to manage the circumstances. RAIB also highlighted other factors, including informal communication using inappropriate channels, poor presentation of key operational information and ill-defined incident management processes.

Since the incident, Network Rail and Southeastern identified and implemented a number of actions as a result of their own joint investigation. They also implemented improvements to their winter seasonal preparedness arrangements to make sure they give a warning when the risk of conductor rail ice accumulation is likely to be particularly severe.

Network Rail is investigating options to improve its winter seasonal preparedness, while both companies have developed a set of instructions for drivers and signallers designed to specifically deal with a train that cannot make adequate progress because of conductor rail ice accumulation.

In addition, RSSB has two research projects under way concerning the management of train service disruption:

- T1135, Developing a framework and implementation activities to empower staff to make decisions during service disruption - this concerns the development of a tool to improve the effectiveness of operational decision making.
- T1154, Enabling better planning and resource management during disruption - this concerns the development of a tool to provide good practice in the development of contingency plans.

RAIB also recommended that Network Rail and Southeastern:

- Review their seasonal preparedness arrangements for winter, taking into account the actions already taken or in progress as result of the incident.
- Work with RSSB to provide suitable instructions and guidance to operations staff to help them determine when a train should be considered as stranded, the timeframe within which this needs to be declared and the actions that then need to be taken.
- Continue their joint review of the processes for decision making, communications and the handling of information.

Southeastern should also:

- Review the arrangements and resources for assisting train crews in managing, informing and reassuring passengers on trains that are stopped at locations remote from station platforms, making any changes necessary to provide sufficient numbers of suitably trained staff who are competent to access the track and support the managed evacuation of trains.
- Continue to review the adequacy of the systems and facilities on each type of train it operates in relation to alleviating the risk of self-evacuation. This should take into account the practice of other metro-type railway operators.

Find out more

For more information on the joint investigation, type "Southeastern Network Rail action plan Lewisham" into your browser.

For more information on the research projects, go to the Research Catalogue on www.rssb.co.uk and search for T1135 or T1154.

Possession Management

The industry is increasingly using planned possessions to do maintenance work. This removes the risk from fast-moving trains, but in such a safety-critical environment, what other hazards do we face?

Operating our railway in a safe, reliable and efficient way depends on a lot of factors coming together: a robust Rule Book, proficient staff at all grades, plus well serviced assets and infrastructure. To keep our railways running smoothly, our orange army constantly undertakes inspections, maintenance and renewal works. Like many roles on the railway, this work has risks, sometimes with tragic consequences, as the tragic incident in Wales in July 2019 demonstrates. So how do we reduce those risks? How do we eliminate the need for our colleagues to be working on or near the line when it's open to traffic?

The railway industry isn't complacent. It's working to mitigate against risks, keeping up with the safety trends and investing in research and development. The latest technology, including the introduction of autonomous asset condition monitoring, has resulted in an important reduction in the number of routine high-risk activities carried out by our colleagues. Reducing human intervention when lines are open to traffic means we can significantly reduce the risk faced by frontline teams, as they are less likely to face the hazard of fast-moving trains.

But does this remove the risk, or is it transferred to other areas? We can reduce work on open lines, but we still need to maintain and develop our railway; so we increase the number and size of possessions. It means we need more access to work sites and a subsequent broadening of the work categories traditionally associated with weekend and midweek possessions. The direct impact of this may be an increased workload in different sectors, particularly within possession management and support.

And it is having an impact on safety, according to the industry systems that record and analyse safety trends. The National Operations Control Log reflects incidents associated directly with possession management on an almost daily basis. Over the last few months, we have received the sad and distressing news of a workforce fatality involving a member of staff directly associated with possession management and support. Although serious and fatal consequences are rare, one incident is one too many and represents an unacceptable change in

Newswire

2 May, US: Oil train derails in LA, spills 250 gallons

At around 18:30 (local time), an oil train derailed in Vernon, LA. There were no reported injuries, but some 250 gallons of crude were spilled. Local hazard response teams were duly summoned, although there was not thought to be any great risk of wider contamination.

8 May, Norway: Buffer falls, derails locomotive at Oslo

At 18:21 (local time), a buffer on a rake of carriages being shunted to form the night train to Bergen fell off and into a set of points at Oslo Central. As a result, the locomotive derailed and much damage was caused to it, the carriages and the points. A tank containing transformer oil was also ruptured, causing oil to spill onto the trackbed. There were no reported injuries.

8 May, Germany: 20 injured in crossing collision near Rendsberg

A passenger train struck a lorry on a level crossing near Rendsberg. 20 people were hurt, with one reported to have suffered life-threatening injuries.

the dynamic of operating a safe railway. All too often, an unfortunate and worried driver will encounter possession limit boards or worksite marker boards under clear signals. It's not something that a driver should be expected to deal with, but can be the result of poor location knowledge and understanding, or a failure to effectively communicate between all parties concerned.

Sometimes possession management staff will give incorrect instructions to drivers of engineering trains, OTM and OTP to pass signals, enter sidings or leave possessions; even when they don't have the authority to do so. This can lead to challenge or conflict between train crew and possession staff, which isn't at all helpful; but we must maintain the work safe procedure as a matter of course.

When the process for safe operations becomes broken and ineffective, it often results in the same safety critical incidents occurring, adding unnecessary risk to the tasks we're involved in. It's vital for us to continue improving and eliminating risk through mature safety management systems; impartial and constructive investigation, with recommendations and implementation, can help with that. A challenge about the safety and integrity of actions and instructions should always be given the full support and consideration of those tasked with investigating these incidents. But some investigations seem to overlook the underlying nature of the issues.

There are only a few safeguards within the defunct failsafe system once we begin degraded mode working, the main ones being good safety-critical communications, knowledge of the appropriate rules, and applying the correct regulations. It is therefore essential for us to take on board the precursor information associated with operational irregularities and possession incidents and keep these teams away from risk. We must eliminate those underlying risks through basic competence and understanding. It's not the possession management process that needs an overhaul, but how we manage the continuous feed of human incidents. We have to measure it before we can manage it, but if we can't be effective during the investigation, and we're not being truthful to ourselves, then we're never going to be in a position to validate the issues and improve our safety.

As an industry, we now need to reflect on the impact of the change in the risk profile caused by the shift towards safeguarded inspection, maintenance and renewal. We need to review the competency management, risk management and resource effectiveness. Not doing so compromises our ability to manage railway system safety under degraded modes.

19 May, Philippines: Passenger train strikes empty stock, injuring 50+

On the morning of 19 May 2019, an empty metro train ran away and was struck by a passenger service between Santolan and Manila. Four members of staff and 50 passengers were injured. It was later reported that the empty train had malfunctioned and was waiting to be hauled back to the depot when it 'started moving'. It then crossed to the main line. The driver of the passenger service was alerted by the signaller and brought his own train to a stand. It was then struck by the runaway, whose driver managed to jump to safety.

19 May, Poland: Departing freight strikes wagons at Rybnik Towarowy

At 15:25 (local time), a departing freight train collided with a rake of wagons being shunted on an adjacent line at Rybnik Towarowy. There were no reported injuries. Initial reports suggest the shunting locomotive had started its movement without permission.

CIRAS Confidential Reporting for Safety

Staying on the R.A.I.L.S.

CIRAS tells Right Track how to stay calm and provide mental health support at work

Many mental health awareness courses and training materials put a strong emphasis on helping others. And that's right: we need to look out for one another. But in doing so, we must remain aware of our own needs, and make sure we don't put ourselves at risk. After listening to the issues frontline staff face in their roles, we wanted to share this subtly different approach amongst all staff. The RAILS model is a practical model for supporting others, but its focus is on staying calm and looking after our own mental health in the first place. How can we look after ourselves so that we are in the best possible position to support others who may be struggling with their mental health?

This system is useful because it gives us the confidence to handle tough mental health situations. In potentially stressful conditions, it is important to be able to do this by monitoring our own state of mind (see opposite).

Using CIRAS

- You can always use CIRAS if you ever feel unable to report a health, wellbeing or safety concern internally.
- You can make a report if you feel that the mental health support you receive in the workplace is lacking in any way.
- The CIRAS reporting process includes a feedback loop – so you will always hear back from the company on what action has been taken to address your concern.

Newswire

28 May, US: Freight derails in Florida, no reported injuries

Around 06:00 (local time), 22 wagons and both locomotives of an 89-wagon double-headed freight derailed in Wellington, Florida. There were no reported injuries and no dangerous goods involved, although spilled locomotive fuel caught fire.

1 June, Japan: Driverless train reverses and strikes stops at terminal station, injuring 14

At around 20:15 (local time), an automated, driverless train reversed as it was due to depart Shin-Sugita station. It collided with the buffer stops, injuring 14 people, six of them seriously. The computer-based operating system reportedly 'ordered' the train to change direction on arrival; the train then returned a signal confirming that the switch had been made.

7 June, US: Freight derails in Virginia, no reported injuries

At 11:00 (local time), an empty freight train derailed in Shawsville, Virginia. There were no reported injuries.

Remain calm

Check in with yourself first. As a rule, you are much more able to help others if you can remain calm yourself. If a situation seems very challenging, taking a few deep breaths can make a big difference before you decide to approach someone. If you're not up to it, don't put yourself at risk – walk away and find someone else to help.

Approach

Consider the best way to approach the person you are concerned about. Assess the situation as best you can. Sensitivity is required because it may be difficult for the person to talk about their issue. Watch for signs that they may be experiencing a crisis situation:

- alcohol or substance abuse
- suicidal thoughts and behaviours
- panic attacks
- aggressive behaviours
- trauma after an incident
- psychotic states
- medical emergency.

Inquire

Engage the person and ask them how they're feeling. You may have noticed they are:

- behaving differently from usual
- fatigued
- anxious
- stressed
- displaying melancholy or depression.

Empathise with them and express your concern, but refrain from giving advice.

Listen

Listening works best if you can be non-judgmental. In order to do this:

- try to put your judgments aside
- treat the person with respect and dignity
- keep an open mind
- ask 'how long have you been feeling this way?'
- give them space to tell their story.

Support

The support you provide can be practical and emotional. By being there for someone in crisis, you can:

- give them hope for recovery
- help them to recover faster.

Encourage the person to seek appropriate professional support wherever appropriate. This could be in the form of:

- workplace support
- doctor
- counselling or therapy.

15 June, Poland: Fatal level crossing collision between Kąty Wrocławskie and Mietków

At 18:22 (local time), a passenger train struck a car at a level crossing fitted with flashing red warning lights between Kąty Wrocławskie and Mietków. The speed of impact was 108 km/h. All five people in the car were killed.

17 June, Hungary: Two maintenance staff struck by train at Győrszabadhegy

At 10:50 (local time), two signal maintenance workers were struck by a train at Győrszabadhegy. One suffered major injuries, the other sustained injuries more minor in nature.

20 June, Pakistan: Passenger train collides with freight in Hyderabad, killing at least three

At around 17:00 (local time), the Jinnah Express struck the rear of a stationary freight in the Pathan Goth area of Hyderabad, killing the passenger driver and two passenger crew members. Pakistan Railways (PR) told the media that the 'wrong signal' had been displayed to the express. However, PR's Chief Executive Officer later said that the train had been overspeeding at the time of the incident, having failed to slow for its booked stop at Hyderabad.

Wired for sound

The Rail Industry Standard on Control of Mobile communication Equipment use in Driving Cabs has been updated to cover all personal electronic devices.

We all need to manage the risk of distraction presented by the use of personal electronic devices, especially in safety critical roles. Up to now, the focus has been specifically on mobile phones.

Most train operators have strict policies about how mobile phones can or can't be used, to mitigate against the risk of distraction. An incident in Chatsworth, California in 2008 demonstrated the potential costs of this distraction. There was a collision between two trains, believed to have been caused by the driver of one train failing to respond to a signal. He was texting on his mobile phone.

But there can be safety benefits to providing alternative means of communication; for example, in emergency situations, or when other communications systems have failed. There can be performance benefits, if there are delays or failures on the network. For example, control staff may need to provide technical advice or instructions on redeployment of resources. In 2007, the driver of the train that derailed at Grayrigg relied on his mobile phone to make contact with the signaller after regaining consciousness.

Mandatory requirements relating to mobile phones are described in the Rule Book, and specific guidance on the appropriate use of mobile phones is contained within individual company policies. In 2009, RSSB published a Rail Industry Standard on the use of mobile telephonic equipment in driving cabs, which included recommendations for the minimum level of restriction on mobile phone use that should be specified in company mobile phone policies.

However, there has since been a proliferation of devices which can be worn or carried including tablets, smartwatches, fitness bands, wireless headsets and smart glasses. This RIS has therefore been reviewed and updated to cover all mobile communication equipment, as we become aware of emerging risks.

The updated RIS now aligns with the ORR document RIG-2009-06, which emphasises the need for companies to conduct a suitable and sufficient risk assessment around the use of mobile communications equipment in train driving cabs. To help with this, the RIS also has an appendix with guidance, which train operators can use when developing a company policy on the control of mobile communication equipment used in driving cabs.

Find out more

To see the RIS, go to the Standards Catalogue on www.rssb.co.uk and search for RIS-3776-TOM issue 2.

To see the ORR's position on this, type "ORR RIG-2009-06" into your search engine.