Annual report of health and safety on Britain's railways 2024 to 2025

Covering the period from 1 April 2024 to 31 March 2025

Chief Inspector's Review

by Richard Hines

HM Chief Inspector of Railways and Director of Railway Safety

Safety is the railway's most critical obligation. It forms the foundation on which trust and confidence in the system is built.

Achieving good health and safety outcomes in a complex, inherently high-risk environment does not happen by chance. It's the product of extensive investment, strong leadership, innovation, collaboration across interfaces, and ensuring previous mistakes are never repeated. It also requires thousands of individuals across the industry to help keep the network healthy and every day through their expertise, commitment, and professionalism.

We must however remain vigilant. The fatal train collision at Talerddig last year, which claimed one life and injured many others, was a sobering reminder of what can happen when risk controls fail. Only two weeks earlier, I had stood in the Ladbroke Grove memorial garden, reflecting on the profound loss and lasting impact of another tragedy 25 years ago. The proximity of these moments was deeply moving.

This is not a 'normal' year for our mainline railway, although our non-mainline systems remain largely unaffected. It is entering a period of profound change, shaped by the most significant reform agenda in a generation. The creation of Great British Railways (GBR) and the restructuring of the industry are intended to simplify, integrate, and modernise how our railway works. But as we start this period of transformation, also in the context of a constrained financial environment, the health and safety of passengers, workers, and the public must remain the priority for the duration.

Reform provides an opportunity to build upon current strengths. Done well, a more integrated railway – underpinned by unified leadership – can better identify and manage risk, close long-standing gaps at interfaces, and enable faster, more joined up responses to address priority issues. There are also huge opportunities to evolve our safety culture, and create a more inclusive, diverse workforce that attracts and retains the brightest talent.

At the same time, reform introduces areas of uncertainty. If attention is diverted from the day-to-day safety of the railway, or if roles and responsibilities are not clearly defined, there is a risk that safety performance could be compromised. Proactive risk management, clear accountability, and visible safety leadership at every level will be essential to ensure that health and safety remains not just a priority, but a guiding principle – through every decision, in every part of the system.

The following sections of this report describe our assessment of the railway industry's health and safety performance for the year. A series of practical case studies are also included. My key reflections from the last work year are briefly summarised below.

Network Rail

Network Rail maintained good health and safety performance during the year. Substantial progress was made in addressing overdue assessments for structures and dealing with weather-related risk, although this has been delivered in the context of focussed regulatory attention.

Overall train accident risk was broadly consistent with recent years. However, serious incidents remain a concern, including 29 high potential risk events – mostly at level crossings. A freight train derailment in Audenshaw in September 2024 caused significant infrastructure damage, although there were fortunately no injuries. Our investigation identified shortcomings in track maintenance practices which has been the subject of targeted enforcement action (see the Network Rail section of this report for further details).

Network Rail's Occupational Health team continues to lead a positive shift in the organisation's approach to health risks, although further work is required on topics such as the management of exposure to welding fume.

Mainline operators

The number of Signals Passed at Danger (SPADs) continued to increase, although the number of

high-risk events remained relatively stable. Improving the consistency and quality of SPAD cause recording, including adhesion related events, is important to support more effective industry-wide learning and mitigation. An effective approach to address concerning overspeeding events also requires coordination between operators and infrastructure managers.

Our updated guidance on Managing Rail Staff Fatigue received a positive industry response and we continued work to understand and test industry's capability to manage digital safety risks.

Non-mainline railways

We continued our focus on London Underground's maintenance practices for ageing building assets, particularly related to water ingress, identifying areas where risk management could be strengthened. We also concentrated on their change management approach for the highly complex four-lines modernisation programme.

We maintained strong strategic collaboration with the Light Rail Safety and Standards Board (LRSSB) and our proactive regulatory efforts across tramway networks looked at two key areas – Medical Fitness of Safety-Critical Staff and Non-Motorised User Crossings.

Policy, strategy, and statutory activities

We delivered a range of statutory work through health and safety permissions and approvals, including those associated with the transition of Train Operating Companies into public ownership. We served four Improvement Notices during the year and concluded three criminal prosecutions, including two relating to the deaths of trackworkers at Margam and Surbiton.

We collaborated with our economic colleagues and industry to review how businesses assess the costs and benefits of health and safety interventions in rail. We identified important learning points to support best practice and improve consistency.

We continued work with the Department for Transport to explore options for streamlining the current statutory train driving licensing regime. A key early outcome of this review (subject to a change in the law) was the agreed reduction of the minimum licensed train driver age from 20 to 18 years.

Finally, we invested in our own capability by establishing three cohorts of trainee Inspectors and

Inspector Assistants, alongside strengthening the continuous professional development of our qualified staff to ensure their skills and knowledge remain aligned with the evolving railway environment.

Themes for the year ahead

The publication of our Annual Health and Safety Report provides an opportunity to set out what I consider to be the main themes and areas of challenge for the year ahead. I have three:

1. Keeping today's railway healthy and safe – building the foundation for tomorrow

The responsibility to operate a safe railway every day remains constant. A safe and healthy railway today is the foundation for a better railway tomorrow. Fulfilling this responsibility demands focus, coordination, and sustained industry commitment.

Key priorities include:

- **Maintaining health and safety performance:** Ensuring day-to-day risks are actively managed in the context of a changing risk profile and environment.
- **Clear accountability:** Reinforcing responsibilities and expectations at every level of the system, from executive leadership to front-line teams and our supply chain.
- **Consistent delivery and continual improvement:** Driving alignment across operators, suppliers, and other key stakeholders to deliver good outcomes across the system. Using current data, incidents, and operational learning to make informed improvements without delay.

For the year ahead, we will maintain a relentless focus, using a diverse range of regulatory interventions, to ensure that the industry remains vigilant and delivers a safe and healthy railway every day.

2. Embedding health and safety at the heart of reform and change

Safety must remain the guiding principle throughout this period of change. Change brings opportunity, but also complexity and risk. By embedding health and safety thinking from everyone with expertise into every stage of reform – from strategic design to implementation – we must ensure that transformation and change strengthens, rather than compromises, the safety of our workforce, customers, and operations.

Key priority areas include:

- **Safety-led transformation:** Ensuring change and reform is designed and delivered with desired health and safety outcomes in mind.
- **Leadership accountability:** Keeping safety at the centre of decision-making during organisational and system change.
- **Resilience through transition:** Managing change without compromising the integrity of safety-critical systems and supporting arrangements.

We will continue to engage in rail reform discussions, providing advice on good health and safety principles and scrutinising proposals as they emerge. We will leverage our unique position to convene conversations where required.

3. Enhanced collaboration across interfaces: A necessary safety leadership capability

In inherently high-risk, complex systems, collaboration is not optional – it is a core leadership capability. Leaders who collaborate effectively are better equipped to manage complexity, align diverse perspectives, and expedite the adoption of technology. Collaborative leadership within and between organisations enables better decision-making, builds a stronger safety culture, and delivers more resilient operations – especially in times of change.

Key priorities include:

- **Leadership capability:** Building arrangements and ways of working that develop collaboration and shared understanding of risks and opportunities.
- **Greater alignment:** Examples of leaders and organisations sharing information, driving joint safety planning, and where applicable, integrated risk management approaches across interfaces.
- **Partnering and cultural modelling:** How leaders partner with everyone with relevant expertise (including system users, the railway workforce, unions, supply chain) to deliver successful safety outcomes. Senior leaders must demonstrate humility, openness, and inclusion to foster trust and collective accountability.

We have a strong track record of collaboration and convening industry to work together to fix important problems. These approaches will continue to feature prominently in how we work in the future, whilst also being mindful of the importance of upholding our role as an independent

regulator.

Looking forward

To effectively deliver our regulatory functions, we rely on every part of the system to play its part. Thank you to the many individuals and organisations across the industry for all you have contributed over the last 12 months.

I am also grateful to those whom I have had the pleasure of visiting and meeting during my first year as Chief Inspector. I value your insight, and I am committed to continuing to evolve our approach and deliver regulatory excellence in all that we do to help deliver a healthier and safer railway.

I look forward to working with you during the year ahead.

Health and Safety across the railway sector: the regulator's view

Introduction

This section provides a summary of our key findings across the railway sectors we regulate. It highlights significant risk areas and evaluates how effectively these are being managed. Our conclusions are supported by a range of evidence, including (where appropriate) the results of our Risk Management Maturity Model (RM3) assessments. These are provided in Annex A.

RM3 is a core tool used to assess the maturity and effectiveness of health and safety management systems. It evaluates an organisation's capability to manage risk and deliver excellence in risk control. The model examines various elements, including policy, monitoring, audit and review, planning and implementation, co-operation and confidence, and organisational structures for control and communication. Performance is rated on a five-point scale, which helps identify strengths and areas for improvement. Further detail on RM3, including assessment criteria and performance levels, is available in the Risk Management Maturity Model (RM3) 2019.

How ORR assesses harm and risk performance

Reliable data collection across Great Britain's railways is essential for:

- Identifying risk trends and emerging issues.
- Setting appropriate priorities for risk control, and
- Monitoring and benchmarking performance.

We assess health and safety performance using both actual harm and modelled risk:

- Actual harm is quantified using the Fatalities and Weighted Injuries (FWI) index, a composite measure that combines fatalities and injuries, weighted by severity.
- Modelled risk is derived from historical data to estimate the likelihood and potential consequences of safety-related events. On the mainline, this includes the Rail Safety and Standards Board (RSSB)'s Safety Risk Model (SRM) and the Precursor Indicator Model (PIM), which tracks trends in key precursors to catastrophic train accidents. Similar models are used by London Underground (LUL) and in the tramway sector.

While these outcome-based indicators provide valuable insights into current risk levels, they are inherently retrospective and not always predictive of future issues. To address this, we adopt a broader and more proactive approach, using RM3 assessments and other intelligence sources to triangulate our view of industry performance. These include:

- Planned inspections that evaluate the management and control of risk in operational settings.
- Performance indicators, such as near-miss events that had the potential to cause harm.
- Content indicators, including asset management and maintenance performance, and
- Context indicators, such as safety culture and leadership commitment to risk management.

When analysing harm over time, it is important to consider the annual trends of passenger numbers and freight traffic. More information on rail usage can be found on ORR's Data Portal

The data contained in this report are sourced from:

- Network Rail's Safety, Health and Environment Performance (SHEP) Reports.
- Network Rail's Chief Engineer Assurance Reports.

- Office of Rail and Road (ORR) Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) reporting tool – safety incidents which occur on non-mainline railways including trams, metros, other light rail, and minor and heritage railways in Great Britain are submitted by duty holders under the Reporting of Incidents, Diseases and Dangerous Occurrences Regulations 2013,
- Outputs from inspections, investigations, industry incident reporting and liaison meetings with industry.
- RSSB's Safe Insights data – the industry's national database for recording safety related events that occur on Great Britain's mainline rail network. High Speed 1 Limited (HS1 Ltd) and Core Valley Lines infrastructure safety incidents are also included.
- RSSB PIM Dashboard, available at – Precursor Indicator Model Dashboard

Safety data for April 2024 to March 2025 will be reported in our rail safety statistical release, provisionally scheduled for publication end of September 2025. It will contain safety statistics on mainline rail, London Underground, and other non-mainline networks (trams, metros, other light rail, minor and heritage railways).

Track and Train: Network Rail and train operators

Network Rail

Key messages:

Network Rail maintained good health and safety performance during the year. Substantial progress was made in addressing overdue assessments for structures and dealing with weather-related risk, although this has been delivered in the context of focussed regulatory attention.

Overall train accident risk was broadly consistent with recent years. However, serious incidents remain a concern, including 29 high potential risk events – mostly at level crossings.

A freight train derailment in Audenshaw in September 2024 caused significant infrastructure damage, although there were fortunately no injuries. Our investigation identified shortcomings in track maintenance practices which has been the subject of targeted enforcement action.

Network Rail has made good progress in reducing red zone working with unassisted lookout protection. Near-miss incidents involving trackworkers have fallen significantly – from 65 to 16

annually – reflecting the positive impact of the Track Worker Safety Task Force.

Network Rail's Occupational Health team continues to lead a positive shift in the organisation's approach to health risks, although further work is required on topics such as the management of exposure to welding fume.

Network Rail's management maturity (RM3)

The use of our updated inspection application allowed us to gather a more detailed picture of Network Rail's performance from nearly 300 interventions, including inspections, investigations, and statutory activities.

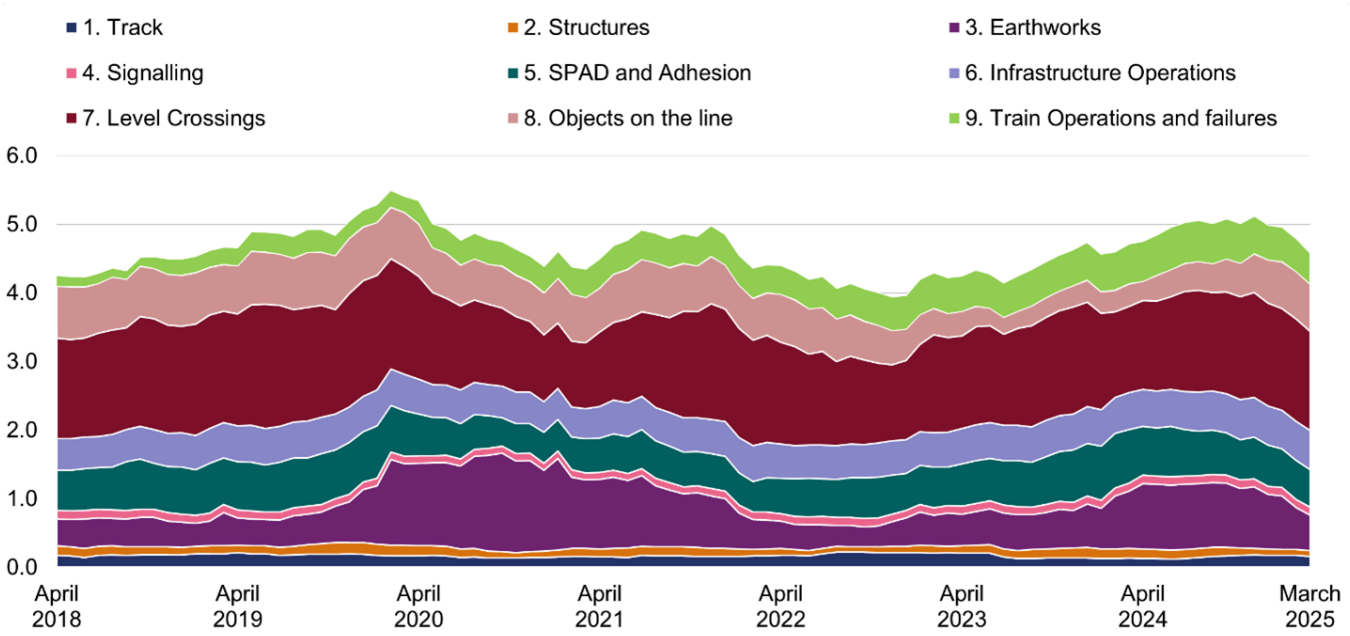
Although Network Rail operates as a single legal entity, operational practices often reflect a more devolved structure. This variability can impact the consistency and effectiveness of the safety management system. A more integrated approach, supported by consistent leadership focus, would help ensure that centrally developed standards are effectively applied across all regions. Consistent assurance across the business remains an area for development.

Overall, Network Rail continues to operate at a 'standardised' level of management maturity.

Risk performance

In 2024 to 2025, 29 high-potential train accident incidents were reported, a slight decrease from 33 the previous year (source: Network Rail). As in previous years, level crossings accounted for the majority of incidents. The most serious involved a head-on collision at Talerddig, resulting in one passenger fatality and multiple injuries.

Figure 1: Precursor Indicator Model (PIM)



Source: RSSB

Following level crossings, earthworks events – often driven by adverse weather – were a major contributor to Fatalities and Weighted Injuries (FWI), particularly in autumn. Risks associated with Signals Passed at Danger and adhesion-related incidents have declined.

Workforce safety incidents remained stable overall, with 29 high-potential events recorded. The leading causes continued to be slips, trips, and falls. Precursor risk trends are broadly unchanged from the previous year.

Control Period 7 (CP7) health and safety delivery plan

CP7 began in April 2024 and sets out 17 key themes to improve health and safety performance through to March 2029. We introduced internal dedicated monitoring resource to support delivery and maintain momentum.

We observed that Network Rail has not fully embedded the Safety Risk Bowtie framework in its risk assessments - particularly in areas where asset renewal activity is being reduced. This tool is central to understanding how such changes might affect risk. To strengthen delivery, we are encouraging greater consistency between regions, clearer governance arrangements, and better visibility of cross-cutting safety themes.

Extreme weather

Extreme weather events in particular, and their impact on buildings and structures management, have continued to be a significant issue for the industry. As part of our multi-year strategic intervention programme, we undertook several observations of regional extreme weather preparation meetings in the run-up to named storms and warnings. This allowed us to assess whether Network Rail's current standard had been met and is sufficient to achieve the level of control required. We completed this year's interventions by carrying out regional assurance audits of Network Rail's arrangements, with the aim of developing a national picture of compliance within the requirements of health and safety law.

Asset safety

This year we undertook work with Network Rail centrally and in the regions on three key areas of asset safety:

Structures and operational property

With responsibility for over 30,000 structural assets and 2,500 stations, Network Rail's examination and assessment regime is critical to infrastructure safety. Our inspections identified regional shortfalls in compliance with asset management standards, affecting around 4,500 structures and stations. Network Rail confirmed in February 2025 that risk assessments are now in place for all previously non-compliant structures and that station assessments were completed by April 2025. We will continue to monitor progress as this programme advances.

Earthworks and drainage

Two high-potential earthworks events occurred during the year, though timely mitigations prevented derailments. Encouragingly, the rate of high-consequence failures decreased compared to 2023 to 2024. We continue to focus on Network Rail's ability to manage drainage assets effectively and expect that asset identification and record-keeping are maintained to a high standard.

Track and lineside

A freight train derailment in Audenshaw in September 2024 caused significant infrastructure damage, although there were fortunately no injuries. Our investigation identified shortcomings in

track maintenance practices, leading to the issuing of an Improvement Notice for the Manchester Delivery Unit in April 2025 (This notice was served outside the reporting period for this report, so is not included in the notice information in our key enforcement activities later on in this report). Network Rail has since initiated a detailed action plan, and we will work closely with them to ensure actions are delivered and lessons are embedded across the organisation.

Modernising maintenance (MM)

Modernising Maintenance remains a key area of change for Network Rail's Delivery Units. While some units have adapted well, others face challenges in balancing resources, access, and proactive maintenance. Although Switches and Crossings (S&C) inspection standards are being met, there are signs of operational strain, including inspection backlogs and temporary workarounds. We continue to encourage a robust safety management system that prevents such measures from becoming standard practice.

Trackworker safety

Since a series of tragic incidents between 2019 and 2021, Network Rail has made good progress in reducing red zone working with unassisted lookout protection. While technologies like the Semi-Automatic Track Warning System (SATWS) are available, uptake has been slower than expected. However, we are seeing more work conducted under protective conditions such as line blockages and night-time possessions. Near-miss incidents involving trackworkers have fallen significantly – from 65 to 16 annually – reflecting the positive impact of the Track Worker Safety Task Force. Network Rail is now exploring risks arising from possession and line blockage irregularities.

Electrical safety

The Electrical Safety Delivery Programme, which includes the rollout of the Traction Power Centralised Management System (TPCMS), has experienced further delays. This programme aims to modernise safety systems and reduce staff exposure to operational hazards. We continue to review progress closely and support efforts to improve efficiency and reduce risk through automation.

Level crossings

In 2024 to 2025, five fatalities occurred at level crossings, primarily at passive footpath crossings where users must rely on their own judgment to cross safely. This compares to one fatality in 2023

to 2024 and five in 2022 to 2023. Usage of footpath crossings has remained elevated since the pandemic, and near-miss incidents have also increased. In 2025 to 2026, we will conduct a series of inspections across all Network Rail regions to assess how effectively risk is being managed at these crossings.

Occupational health

Network Rail's Occupational Health team continues to lead a positive shift in the organisation's approach to health risks. A new health strategy is being delivered, and a maturity model is planned for implementation in 2026. Our engagement this year focused on ensuring strategic alignment with legal duties and promoting consistency across routes and regions. We continued our focus on the health impacts of exposure to welding fumes and our interventions have allowed us to gather insights on Network Rail's progress in controlling these risks. Inspections next year will assess compliance with the use of appropriate risk controls and our findings will be used to generate specific region and route reports, informing a national overview.

Human factors

We continue to monitor how human factors are being addressed by Network Rail and its suppliers. Challenges in this area contributed to delays in the European Train Control System (ETCS) upgrade on the Northern City Line. Strengthening supplier engagement, improving resources, and fostering a more proactive approach will be important to ensure that human factors are effectively considered in future projects.

Fatigue

Our updated guidance on Managing Rail Staff Fatigue, published in August 2024, received a positive industry response. Early inspections suggest that the guidance is helping improve fatigue management systems, though additional progress is needed in training, monitoring, and the use of meaningful performance indicators.

We have raised concerns about Network Rail's proposed changes to fatigue standards. As a result, implementation has been paused to allow for further data gathering and review. We remain closely engaged with the Fatigue Improvement Programme and continue to support the development of a long-term, sustainable approach to fatigue risk.

Mainline train operators and freight

The mainline operators comprise charter operators, passenger train operators (TOCs) and freight operating companies (FOCs) that operate over infrastructure controlled by Network Rail and Amey Infrastructure Wales Limited (Seilwaith Amey Cymru).

Key messages:

The number of Signals Passed at Danger (SPADs) continued to increase, although the number of high-risk events remained relatively stable. Improving the consistency and quality of SPAD cause recording, including adhesion related events, is important to support more effective industry-wide learning and mitigation. An effective approach to address concerning overspeeding events also requires coordination between operators and infrastructure managers.

Encouraging progress has been made in improving the safety of heritage rolling stock on the mainline. However, there remain missed opportunities to fully embed safety-by-design principles in the procurement of new rolling stock.

Our updated guidance on Managing Rail Staff Fatigue received a positive industry response and we continued work to understand and test industry's capability to manage digital safety risks.

Rail reform context

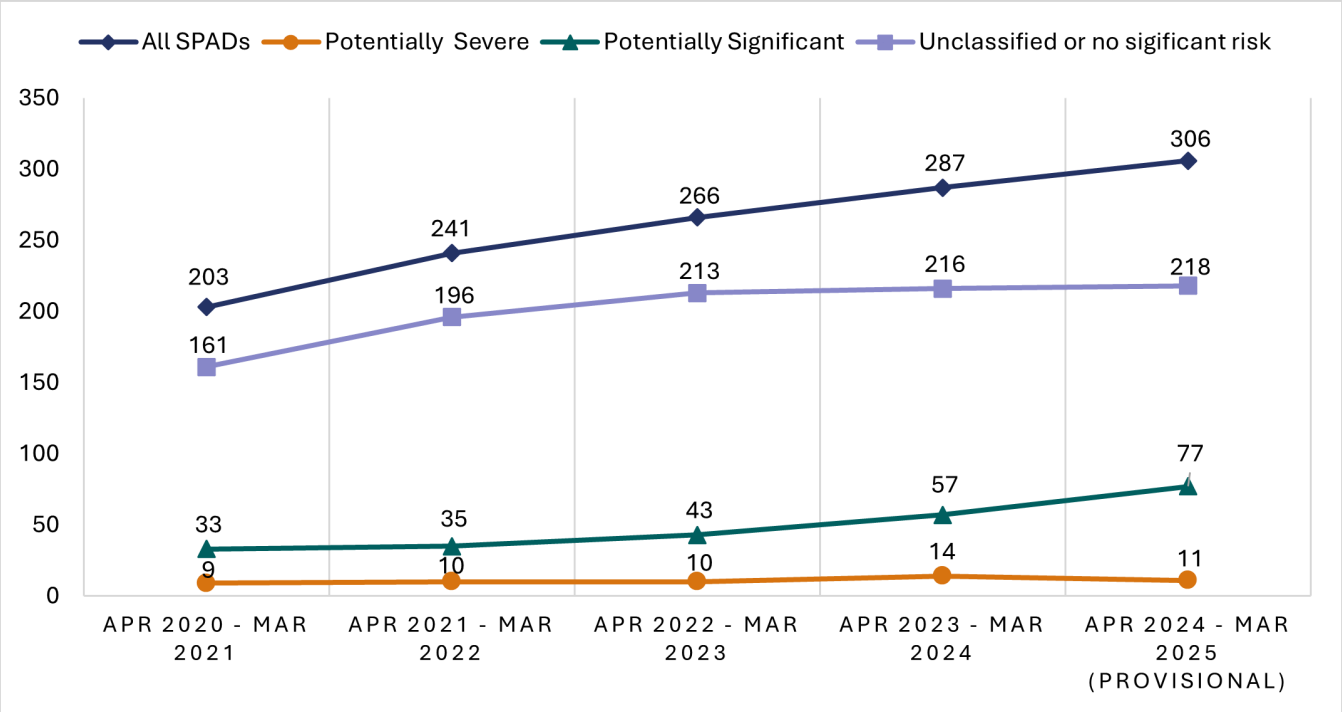
As franchised mainline passenger operators transition into public ownership, we have observed positive and enhanced collaboration with Network Rail. A notable example is the strategic integration between Southeastern and Network Rail with a single leadership team, which has helped to streamline functions in preparation for the formation of Great British Railways.

We will continue to monitor the safety implications of reform, supporting alignment between operator safety management systems and infrastructure integration. We will maintain direct engagement with operators to promote shared learning and best practice across the industry.

Signals Passed at Danger

Following the conclusion of our three-year SPAD inspection programme in 2024, we have continued to monitor trends across passenger and freight operators. Although total SPAD numbers show a slight increase, high-risk SPADs have remained broadly consistent over the past four years.

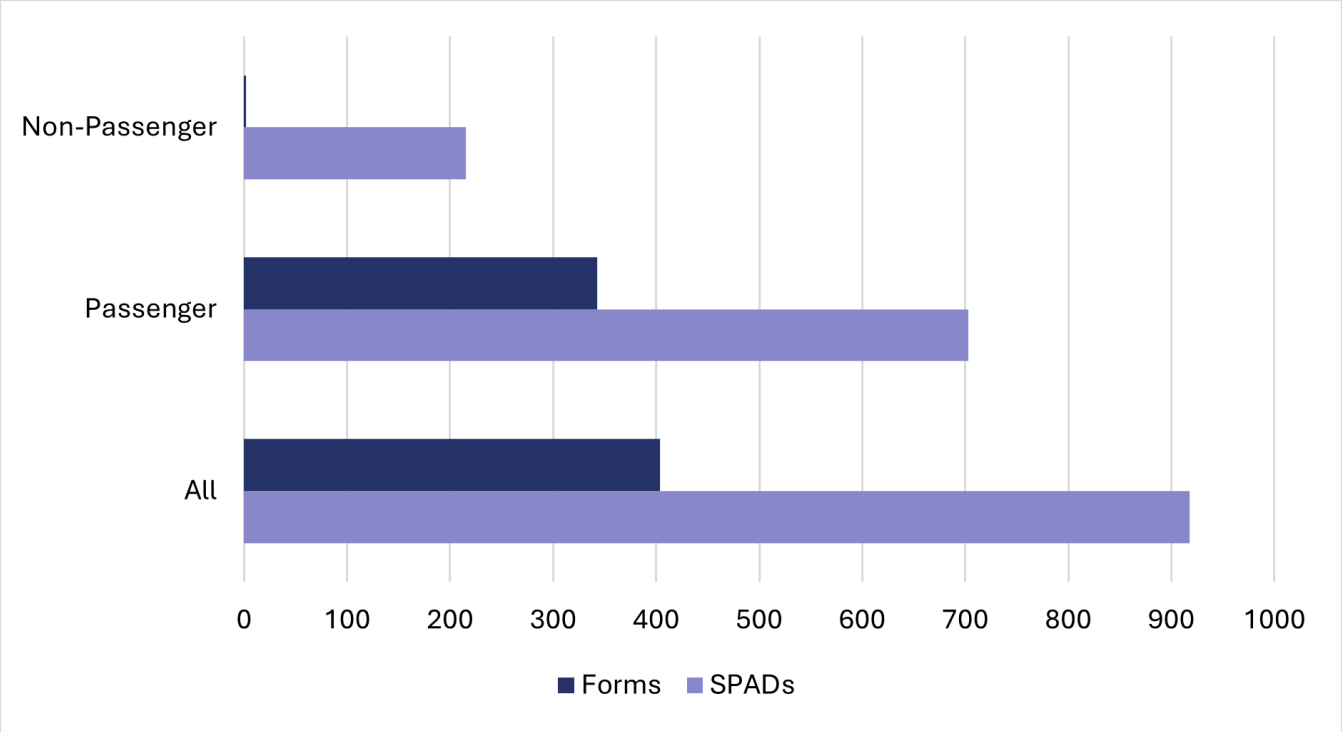
Figure 2: Signals Passed at Danger on the Mainline



Source: RSSB

RSSB's recent analysis identified inconsistencies in the completion of post-incident SPAD reports, creating gaps in understanding the root causes. While some operators demonstrate full compliance, others have not submitted reports, limiting the industry's ability to learn from these events. Given our recent focus on the quality of industry SPAD investigations and the potentially catastrophic consequences of such an incident, this is a matter of serious concern. We will continue to engage through regular liaison with operators to ensure that the vital learning on the causal factors of SPADs is captured and shared.

Figure 3: SPADs and Completed Cause Forms April 2021 to December 2024



Source: RSSB

Operator Type	Recorded SPADs	Completed Forms	Percentage Completion
All	918	404	44.0%
Passenger	703	343	48.8%
Non-Passenger	215	61	28.4%

Source: RSSB

We continue to support industry investment in ETCS and associated driver training, including use of simulators. ETCS is expected to significantly reduce SPAD and overspeeding risk, though residual risk – such as from low adhesion or equipment failure - remains. The October 2024 collision at Talerddig illustrates this, as one train was unable to stop despite ETCS controls, due to low adhesion conditions.

Overspeeding

We continue to work with the industry in response to recent overspeeding incidents and Rail Accident Investigation Branch (RAIB) recommendations. While ETCS provides a long-term solution, interim measures remain essential to manage current risk levels.

An effective approach to overspeeding requires strong coordination between operators and infrastructure managers, supported by clear speed restriction communication, targeted training, and robust incident investigation processes. Additional inspections are planned through to 2027 to assess how these controls are being applied in practice.

Rolling stock management

We continue to advocate for the consistent application of safety-by-design principles in the procurement of new rolling stock. In some cases, we have seen reductions in engineering safeguards - such as omitting speed supervision systems in replacement fleets – which may compromise long-term risk control.

In freight, wagon condition management is improving, aided by new technologies such as body-worn cameras, which provide valuable assurance and post-incident evidence.

To support better alignment between safety standards and procurement decisions, we are working closely with DfT to ensure early operator involvement in procurement planning.

Progress has also continued on retrofitting central door locking (CDL) to heritage rolling stock. Electromagnetic CDL systems have proven compatible with a range of carriage types, including vacuum-braked vehicles. Of the three operators currently holding exemptions under the Railway Safety Regulations 1999, two are expected to complete retrofitting by year-end, while the third maintains safe operations through reduced speeds and enhanced procedures on a short, single-track section.

Digital safety

As digitalisation accelerates, we are seeing greater industry focus on managing the safety risks associated with software and system changes. While operators show strong board-level commitment to digital safety, further development of a holistic, systems-based approach is needed.

Software failure remains a prominent risk, and industry understanding in this area continues to evolve. Strengthening collaboration across suppliers, manufacturers, and operators is key to building the necessary knowledge and capabilities.

During the year, we presented at Cyber Senate and a Fleet Cyber Security Conference on the need to manage digital safety risks through a complementary Safety Management System approach. As part of the UK Health and Safety Regulators Network, we have led an AI sub-group looking at how AI can be embraced as part of regulatory practice, and how we regulate AI itself. We have also engaged with the Light Rail Safety and Standards Board on their cyber security project for the sector. We have had regular engagement with the DfT, National Cyber Security Centre and Rail

Safety and Standards Board (RSSB) on the topic of cyber security and the application of new digital technology. Work will continue into 2025 and 2026, as we build capability.

Workforce health, safety and welfare

Incidents involving violence and aggression towards staff continue to rise, presenting ongoing safety concerns. While these are primarily criminal matters addressed by British Transport Police, we will continue to work with industry and trade unions colleagues to identify safety-based prevention strategies and share good practice.

Fatigue management remains a regulatory priority. RSSB analysis in 2022 found fatigue to be a contributing factor in over 20% of high-risk rail incidents. Our inspections have assessed operators' fatigue management frameworks, particularly for drivers and controllers, with a focus on shift patterns, overtime controls, and real-time monitoring.

Welfare provision has also been a recurring concern. ASLEF's Dignity for Drivers Report 2024 highlighted gaps in access to hygiene facilities for staff. While we have seen improvements in some freight locations, other areas require urgent attention.

As a result, the evaluation of welfare provision will form a standard part of all of our inspections during 2025 to 2026. Additionally, we recently convened a cross-industry engagement event to help identify and implement sustainable solutions.

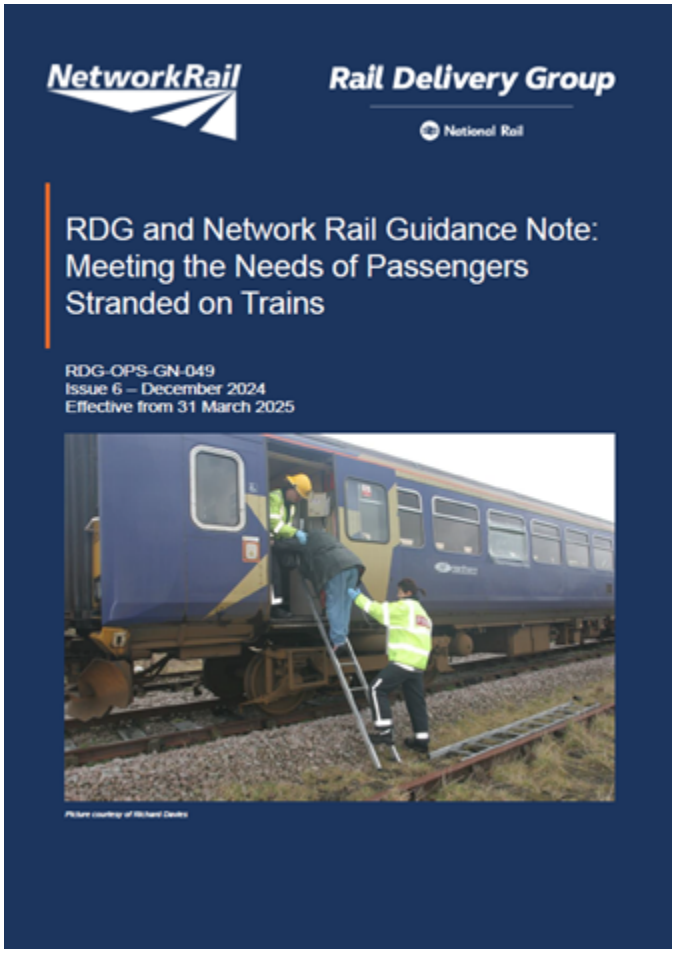
Collaboration with industry groups

We remain closely engaged with a range of key industry forums, including:

- National Freight Safety Group: Our strategic liaison focussed on embedding RM3 industry self-evaluation of management systems. The need to make significant improvements in welfare provision (for example, for lone freight drivers working out-of-hours) has been recognised and a workstream is being developed for a more coordinated industry approach. Our inspection visits to freight yards and depots have prioritised ensuring adequate welfare provision.
- Passenger Operators Safety Forum: Following the closure of Rail Partners, we welcome the continuation of this vital forum under RSSB, ensuring sustained collaboration across the passenger sector.
- People on Trains and Stations Risk Group (PTSRG): We remain actively involved in

addressing safety at the platform-train interface. In 2024 to 2025, our engagement focused on managing risks associated with passengers stranded on trains and the dangers of unauthorised self-evacuation onto live lines.

Case Study 1: ORR and Transport Focus Stranded Trains Event – January 2025, Birmingham



In response to recurring incidents involving passengers stranded on trains, we hosted a cross-industry event in Birmingham in January 2025 in partnership with Transport Focus (the independent transport user watchdog). This event brought together senior leaders from train operators, safety bodies, and other key stakeholders to collaboratively develop solutions focused on improving passenger experience and emergency response.

The event aimed to learn from past incidents and rigorously assess the readiness of current systems, particularly considering the updated GN49 guidance on managing stranded passengers. Discussions centred on enhancing coordination across the rail industry, identifying and supporting

vulnerable passengers, empowering frontline staff to respond effectively in dynamic situations, leveraging real-time communication tools including social media, and strengthening resilience through scenario planning and joint exercises.

Key insights from the event highlighted that managing stranded trains is a complex, system-wide challenge requiring coordinated industry action. Culture, capability development, and soft skills training were identified as equally critical as infrastructure improvements. Effective planning must consider multiple variables such as weather conditions, multiple train incidents, and passengers with hidden vulnerabilities. The event also emphasised the importance of localised ownership of responses, mutual aid frameworks, and smarter triage approaches. Innovative tools like HILDA (a system used to detect and alert for potential hazards along the railway), and GSM-enabled messaging platforms were recognised for their potential to enhance forecasting and reassure passengers. Framing the issue in terms of reputational risk and passenger experience helped focus the industry's efforts on doing the right thing.

The event was widely praised for its focused agenda and impactful case studies, as well as the valuable involvement of Transport Focus. It demonstrated a growing industry commitment to addressing the risks faced by stranded passengers with greater seriousness and urgency.

Building on this momentum, we have set clear expectations for ongoing, collective industry engagement throughout 2025 and beyond to improve the management of stranded train incidents and enhance passenger care.

Case Study 2: Fatigue management

Managing fatigue risk remains a significant challenge for GB's rail industry. In 2024 to 2025, our Specialist Team focused on specific topics, including fatigue, to drive improvements. After a consultation in early 2024, we published revised fatigue guidance, Managing Rail Staff Fatigue, in a simpler format based on HSE's 'Plan, Do, Check, Act' model. In September, a well-attended launch event introduced the guidance and our expectations that employers maintain suitable and sufficient Fatigue Risk Management Systems (FRMS) or equivalent measures. The event was a valuable opportunity to engage with industry and address question*s.*

To develop a national overview of fatigue management and legal compliance, we launched a strategic fatigue intervention programme (2024 to 2026) across operators. Early findings show positive industry response to the guidance and inspection programme, with operators implementing improvement plans. While no operator currently has a standalone fatigue policy, there is widespread understanding that fatigue management must be integrated into all parts of the Safety Management System (SMS). We are reassured that all inspected organisations have some level of FRMS and plans to align with the new guidance.

Operators are using the checklist in our Managing Rail Staff Fatigue guidance for gap analysis to

assess arrangements and identify actions. A common area needing improvement is training, especially for those designing rosters and managing safety-critical staff. There is growing recognition of the need to move beyond overly tolerant 'Hidden' limits, apply our Fatigue Factors in roster design, and acknowledge limitations of the Fatigue Risk Index (FRI). Most organisations lack proactive Key Performance Indicators (KPIs), with monitoring mainly reactive and focused on exceedances and overtime. However, there is positive intent to record actual hours worked rather than just rostered hours going forward.

In conclusion, our updated fatigue guidance has been well received and appears to have initiated efforts to enhance fatigue risk management. Operators acknowledge their approaches are not yet mature, often focusing on the 'Plan' and 'Do' stages of the management cycle, but there is clear ambition to improve and move away from 'Hidden' limits. While challenges remain, increasing awareness and understanding offer cautious optimism that sustainable improvements in fatigue risk management are achievable. We will continue to inspect and monitor progress through 2025 to 2026 and beyond.

Non-mainline

Key messages:

Channel Tunnel

The Channel Tunnel's 30th anniversary of operations in the context of recent incidents reinforce the need for maintaining effective systems for managing the health and safety risks associated with ageing rolling stock and infrastructure.

London Underground

We continued our focus on London Underground's maintenance practices for ageing building assets, particularly related to water ingress, identifying areas where risk management could be strengthened. We also concentrated on their change management approach for the highly complex four-lines modernisation programme.

Trams and Light Rail

We maintained strong strategic collaboration with the Light Rail Safety and Standards Board (LRSSB) and our proactive regulatory efforts across tramway networks looked at two key areas – Medical Fitness of Safety-Critical Staff and Non-Motorised User Crossings.

Health and Safety by design

We continued to promote the early integration of health and safety considerations in major rail infrastructure projects and proposals. We also remained active participants in various programmes and working groups to ensure that the rail industry's structural changes are subject to rigorous safety scrutiny and independent oversight.

Heritage and Minor Railways

We issued two improvement notices related to shunting operations and equipment maintenance and concluded a prosecution following a fall from height incident. We also delivered a nationwide series of workshops in partnership with the Heritage Railway Association.

Channel Tunnel

In 2024, the Channel Tunnel marked its 30th anniversary of operations. This milestone reinforces the need for both the concessionaires and international operators to maintain effective systems for managing the health and safety risks associated with ageing rolling stock and infrastructure.

Recent incidents continue to underline the importance of thorough risk assessments, which are essential for informed decision-making and the implementation of effective risk controls.

Regulatory oversight

The Intergovernmental Commission (IGC) remains the safety regulator for the UK half of the Channel Tunnel, with the Channel Tunnel Safety Authority (CTSA) providing expert advice and support on all safety matters relating to tunnel operations.

As bi-national entities, both the IGC and CTSA include representatives from the British and French transport ministries, regulators, and emergency services. We act as the secretariat for both bodies and provide all UK representatives on the CTSA.

Over the reporting period, CTSA activities included:

- Inspection of Eurotunnel's arrangements for managing the competence of engineering train drivers.
- Ongoing collaboration with Eurotunnel to address wheel-rail interface issues and derailment risks. This work followed freight shuttle derailments in 2022 and 2023 involving the loss of critical suspension components. Through detailed technical analysis, Eurotunnel has improved its understanding of track and rolling stock behaviour and contributing factors to derailment.
- Inspection of the UK First Line of Response (FLOR) service, including oversight during the transition from a public fire and rescue provider to a private contractor.
- Continued engagement with potential new international operators and rolling stock manufacturers regarding the safety regulatory requirements for operating passenger services through the Channel Tunnel.

We also enhanced our approach to intervention planning through the introduction of a dedicated risk-profiling process. This will enable more targeted and proportionate inspections based on risk priority.

ElecLink

In September 2024, an incident involving the ElecLink interconnector - linking the UK and French national power networks – occurred near the French portal. Displacement of cable supports led to contact between the positive cable and a fixing bracket, triggering the system's protection arrangements to de-energise the cable. Further faults were discovered during subsequent repair work, delaying the interconnector's return to service until February 2025.

CTSA inspectors supported investigations into the root cause and reviewed ElecLink's inspection and monitoring processes. A more detailed follow-up inspection is planned for 2025 to 2026.

Health and safety by design

In 2024 to 2025, we continued to promote the early integration of health and safety considerations in major rail infrastructure projects and proposals. This included supporting wider workstreams aligned with the Government's rail reform agenda, particularly efforts to embed health and safety principles within plans for Great British Railways.

Our early-stage engagement with projects such as High Speed 2 (HS2) and East West Rail enables us to influence key safety design decisions when they can be addressed most effectively and efficiently. This work has been especially relevant in the context of HS2's reset and project challenges during the year.

We also remained active participants in the Department for Transport's joint Safety Working Group and the Rail Transformation Programme, working alongside the Rail Safety and Standards Board (RSSB) and other stakeholders. Our focus is to ensure that the rail industry's structural changes – including the move of train companies into public ownership – are subject to rigorous safety scrutiny and independent oversight.

Transport for London (TfL)

We maintained constructive and collaborative engagement with Transport for London (TfL) through regular liaison and regulatory scrutiny. Our assessment of TfL's safety management maturity found that performance varied across the organisation: some areas reached the 'managed' maturity level, while others showed signs of becoming 'standardised' and 'predictable',

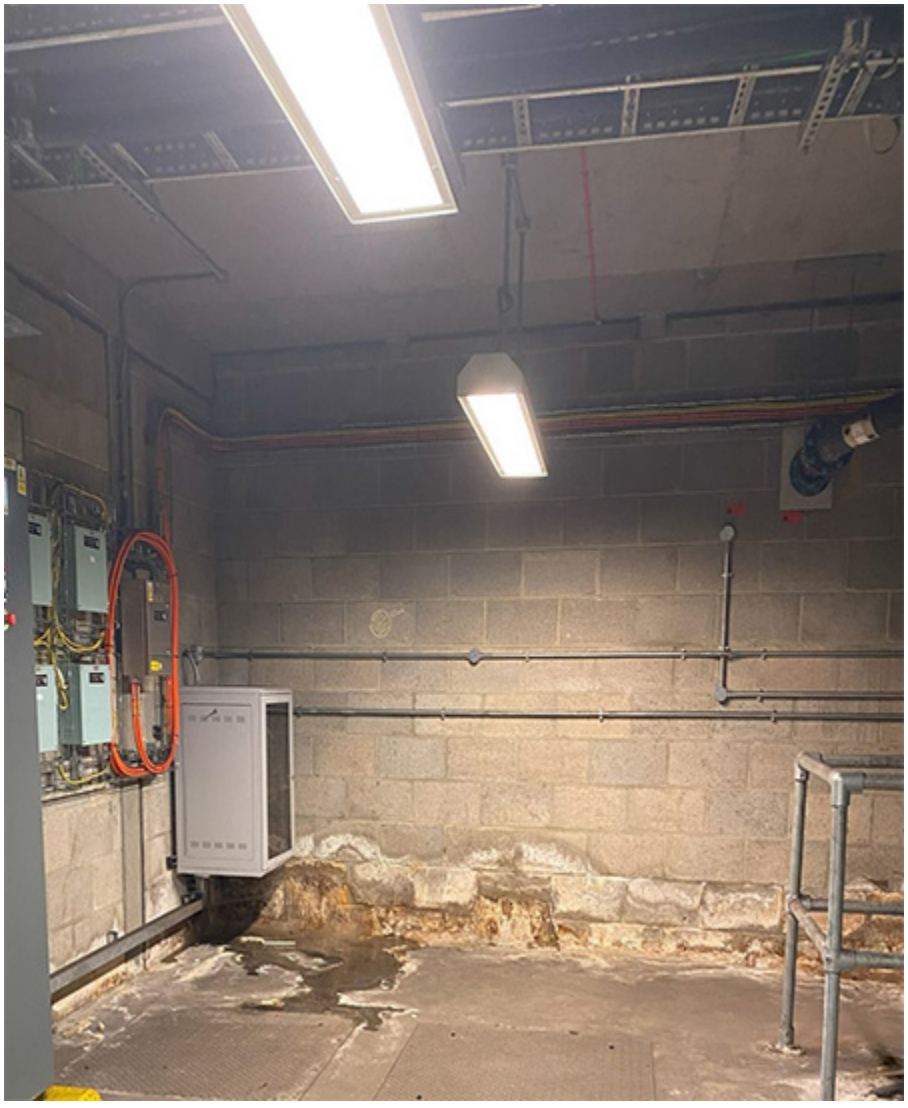
indicating further scope for consistency and improvement.

Our regulatory engagement with Arriva Rail London, in its role as station facility owner, revealed similar levels of management maturity.

London Underground Limited

Assets

Following inspections in 2023 to 2024, we continued our focus on maintenance practices concerning ageing building infrastructure – particularly related to water ingress. Our findings revealed areas where risk management could be strengthened. We have sought and received assurances from LUL regarding remedial action. This work will continue into 2025 to 2026.



Platform Train Interface (PTI)

We remain concerned about platform-train interface risks, including 'trap and drag' incidents and falls onto the track. We continue to press TfL to enhance risk controls, including improvements to door-edge obstacle detection and the deployment of person-on-track detection technologies. This remains a priority area for regulatory attention.

Docklands Light Railway (DLR)

DLR operations saw significant developments in 2024 to 2025 with the appointment of a new franchisee and the introduction of new rolling stock. Software integration and testing of the new vehicles is ongoing, with two trains currently under trial. The existing fleet is operating at reduced capacity until full rollout.

Construction of a new depot is in progress, and trials of camera-based track intrusion detection technology are underway. A revised risk model is also being developed to support these operational changes.

Case Study 3: 4 Lines Modernisation (4LM)

The Four Lines Modernisation (4LM) Programme is the largest upgrade in the history of the London Underground's sub-surface railway, covering the Circle, District, Hammersmith and City, and Metropolitan lines. This ambitious programme aims to modernise the network by introducing new trains, updated track infrastructure, and a cutting-edge Communications Based Train Control (CBTC) signalling system. The upgrade is designed to significantly increase capacity and improve network reliability for millions of passengers.

The complexity of the programme arises from integrating the new CBTC system into existing legacy infrastructure while also ensuring compatibility with separate depot signalling systems. This requires simultaneous software development, comprehensive system testing, and phased signalling migration across multiple parts of the network.

We focussed on London Underground's change management approach, specifically examining software assurance arrangements during testing and commissioning. We identified concerns around how changes were designed and implemented, which had led to numerous operational workarounds - each carrying potential risks.

By applying specialist technical expertise, we conducted detailed reviews of project documentation and assurance processes, supporting our evaluation of how LUL managed and controlled risks. From this, we recommended several key actions to strengthen their change management practices. We continue to work closely with LUL to ensure these improvements are fully embedded as the project progresses towards its most complex signalling migration phase.

London Underground have shown strong commitment to tackling the challenges of integrating the CBTC system with legacy infrastructure. They have adopted new and improved ways of working with their contractors and suppliers, enhancing oversight and embedding industry best practices in software development, testing, and assurance. Their proactive approach to managing change and learning from the process is helping to reduce risks and generate lessons that will benefit other major infrastructure programmes.

Trams and light rail

In 2024 to 2025, we focused our proactive regulatory efforts across tramway networks on two key areas:

1. Medical Fitness of Safety-Critical Staff – We inspected systems for assessing and managing the medical fitness of tram drivers and other safety-critical staff. Our findings showed generally robust systems, clear role understanding, and effective medication declarations. Minor implementation gaps identified have informed targeted improvements.
2. Non-Motorised User Crossings – As a known high-risk area for the public, we examined how tramways manage risk at pedestrian and cyclist crossings. Risk assessments were

found to be aligned with LRSSB guidance and essential controls such as lighting and signage were generally well implemented. Improvement actions were required in some cases, and we ensured that appropriate corrective plans were in place.

Our RM3 assessments indicate that safety management maturity in the sector remains within the 'standardised' range, with noticeable progress in risk assessment practices.

We maintained strong strategic collaboration with the Light Rail Safety and Standards Board (LRSSB), helping to sustain the sector's positive momentum. Heritage tramways were also subject to proportionate inspections which provided assurance that significant risks are being effectively

managed.

Case Study 4: Non-Motorised User Crossings

During our inspections of Non-Motorised User Crossings across modern tramways, we identified several examples of good practice. However, there were also areas that required intervention and improvement. One such instance was observed on the West Midlands Metro network, particularly in areas outside the city centre where trams operate at higher speeds. At several points along the route, NMU crossings provide safer designated points for the public to cross tram tracks.

During site visits, we noted that a number of these crossings had insufficient lighting. This posed a safety concern - not only did it make it harder for pedestrians to see and navigate the crossings, but it also limited the ability of tram drivers to spot crossing users in time. The lack of lighting was primarily due to the challenges of supplying power to remote locations and concerns that bright lights could impair tram drivers' visibility.

In response to our findings, West Midlands Metro acted swiftly. They sourced and installed an innovative and cost-effective solar-powered lighting solution that could be deployed without the need for traditional power infrastructure. This innovation was trialled and implemented in a short timeframe, significantly improving visibility at the affected crossings. As a result, the safety of both crossing users and tram operators has been enhanced, with reduced risks of collision or slip/trip incidents.

The prompt and proactive response from West Midlands Metro reflects a strong commitment to continually raising health and safety standards across the sector. This case provides a positive example of how collaborative oversight and industry engagement can lead to tangible improvements for public safety.

Crossing before installation of lighting

Crossing following installation of new lighting

Heritage and minor railways

The heritage and minor rail sector continue to demonstrate a “managed” level of safety maturity based on RM3 assessments. A significant development this year was the publication of the first safety standard by the Heritage Safety and Standards Board, marking a step towards more “standardised” risk management across the sector.

Key Activities

We conducted inspections focused on:

- Use of Road Rail Vehicles (RRVs) – Most railways demonstrated awareness of key risks and control measures. However, common areas for improvement included banks-person competence, lift planning, and visual aid maintenance.
- Asbestos Management (see case study below).

General inspections showed improved performance, particularly in incident investigation quality. However, managing change safely remains the weakest area. We did observe increasing evidence

of maturity, with four railways assessed at the 'predictable' level.

We issued two Improvement Notices related to shunting operations and equipment maintenance and concluded a prosecution following a fall from height incident.

Sector challenges

A number of incidents linked to extreme weather – such as landslips, storm damage, and fallen trees – highlight the growing need for resilience planning in the face of climate change.

We continue to support the development of the Heritage Railway Safety and Standards Board. While progress has been slower than desired, the publication of a level crossing risk management standard is a positive step forward with further standards expected.

We also delivered a nationwide series of workshops in partnership with the Heritage Railway Association, attended by approximately 100 duty holders.

Case Study 5: Asbestos management

Heritage and minor railways frequently operate with assets containing asbestos, including locomotives, carriages, and historic buildings. Effective management of asbestos is critical to protect the health and safety of staff, volunteers, contractors, and visitors. This is especially important in the heritage sector, where ongoing maintenance and restoration work involves ageing infrastructure.

In 2024 to 2025, we proactively engaged with the heritage railway sector to clarify our expectations for asbestos management. Following this communication, our Heritage team, supported by occupational health specialists, conducted a targeted series of inspections at selected duty holders to assess asbestos risk management practices.

The inspections revealed significant variability in the effectiveness of asbestos management. Some railways demonstrated robust and well-documented systems for maintaining asbestos records, reflecting strong governance and risk control. While no immediate significant risks were identified, other railways exhibited weaker processes, prompting us to provide tailored advice on improving written procedures and record-keeping.

Key findings highlighted the importance of clearly defining responsibility for asbestos management within organisations and ensuring internal capabilities are well understood. Additionally, the inspections identified a general lack of awareness regarding asbestos risks concealed within buildings.

Following these inspections, we shared findings with the wider heritage railway community, enabling all duty holders to review and enhance their asbestos management strategies, thereby safeguarding health and safety across the sector.

Our Health and Safety policy, strategy and statutory work and collaboration with others

Key messages:

We delivered a range of statutory work through health and safety permissions and approvals, including those associated with the transition of Train Operating Companies into public ownership. We served four Improvement Notices during the year and concluded three criminal prosecutions, including two relating to the deaths of trackworkers at Margam and Surbiton.

We collaborated with our economic colleagues and industry to review how businesses assess the costs and benefits of health and safety interventions in rail. We identified important learning points to support best practice and improve consistency.

We continued work with the Department for Transport to explore options for streamlining the current statutory train driving licensing regime. A key early outcome of this review (subject to a change in the law) was the agreed reduction of the minimum licensed train driver age from 20 to 18 years.

Finally, we invested in our own capability by establishing three cohorts of trainee Inspectors and Inspector Assistants, alongside strengthening the continuous professional development of our qualified staff to ensure their skills and knowledge remain aligned with the evolving railway environment.

Case Study 6: Trainee Inspector

In September, we proudly celebrated the graduation of our first two inspectors who achieved their NEBOSH postgraduate diplomas in railway occupational health and safety. These inspectors are the first to complete the entire qualification solely through our in-house ORR regulatory training programme.

Previously, much of our training was outsourced to the Health and Safety Executive (HSE). However, recognising the value of a tailored approach, we made a strategic decision to bring all training in-house. The recent graduation marks the culmination of three years of dedicated effort

by our Learning and Development team, who developed and delivered the comprehensive courses and materials.

Throughout this process, the team ensured that our training met the rigorous academic standards required of a NEBOSH-accredited learning partner. As a result, we now offer a robust, internationally recognised regulatory training programme and qualification. This achievement not only reflects our commitment to regulatory excellence but also ensures that we will continue to maintain a highly capable and competent workforce prepared to meet the challenges of the future.

Improving legislation and processes for train driving licences

The Train Driving Licences and Certificates Regulations 2010 (TDLCR), which implemented a European Directive establishing an EU-wide system of train driver licensing and certification based on common standards, have facilitated cross-border rail operations, increased labour market flexibility, and improved public confidence in rail safety. To date, we have issued over 27,000 licences to train drivers in Great Britain.

As with all UK secondary legislation, TDLCR undergoes a post-implementation review (PIR) every five years to assess its effectiveness in meeting original objectives. The most recent PIR, published in May 2023, identified a clear case for reform. Throughout 2024, we worked closely with the DfT to explore options for streamlining the licensing regime, reducing prescriptive requirements, and incorporating mechanisms that accommodate future technological and medical advancements. These reforms are expected to significantly lessen the regulatory burden on the industry.

A key early outcome of this review was an agreed ORR policy position supporting the reduction of the minimum licensed train driver age from 20 to 18 years. The DfT consulted on this proposal during May and June 2024, and the Secretary of State formally announced it in May 2025 as part of the Government's Plan for Change, aimed at increasing youth workforce participation. Legislative changes to implement this policy are anticipated in 2025 to 2026, accompanied by further consultations on broader reforms, as detailed in our 2025 to 2026 business plan.

Alongside legislative reform, we enhanced our web-based portal to provide a more efficient licensing service for train driver employers. The IT project will conclude in 2025 to 2026,

introducing additional functionality, including direct employer access to update driver records. During the year, we processed increasing volumes of new and renewed licences (see infographic below) and collaborated closely with train operators to develop improved forecasting methodologies to anticipate future demand, as highlighted in the following case study.

Case Study 7: Scotrail – Train driving data

We maintain a comprehensive register of all train driving licences issued across Great Britain, including details of the driver, their employer, and licence status. While maintaining this register is a core statutory duty, we increasingly utilise this data at both operator and national levels to identify emerging trends and inform strategic planning.

One notable trend is the significant rise in new train driving licence applications. In 2023 to 2024, we received 1,140 applications nationwide, which increased by 27.5% to 1,454 applications in 2024 to 2025. Beyond adjusting our resource deployment to meet this growing demand, these patterns provide valuable insight into broader shifts within the rail industry.

To better understand these changes, we engaged directly with operators, including ScotRail, to discuss the trends and gather their perspectives. ScotRail reported a 67% increase in licence applications, attributing this to a strategic five-year recruitment plan aimed at addressing workforce challenges. A key driver behind this surge is the ageing profile of their current drivers, particularly those with over 35 years of service, coupled with a shift towards part-time working preferences among previously full-time staff.

ScotRail also highlighted operational changes such as reducing reliance on rest-day working and a commitment to offering more family-friendly schedules, which have influenced recruitment needs. Additionally, with a substantial number of licence holders approaching renewal, ScotRail forecasted a spike in licence expirations around 2027 and 2028.

In response, we collaborated with ScotRail to develop a staggered licence renewal plan, designed to prevent administrative bottlenecks and ensure smoother processing.

Moving forward, we will continue to engage closely with train operators to understand their workforce priorities and pressures, using licence data collaboratively to better anticipate and prepare for future demand.

Other policy developments and improvements

We started work to prepare for the next PIR of the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS), which we conduct on behalf of the DfT. These regulations underpin the safety management framework for a broad range of rail systems, including mainline railways, metros (e.g., London Underground), tramways, light rail, and heritage railways, requiring operators to maintain a safety management system (SMS) and hold a safety certificate or authorisation approved by ORR.

While the PIR report is scheduled for August 2026, we have established stakeholder engagement and evidence-gathering processes designed to be effective and proportionate, mindful of ongoing rail reform consultations. The 2026 PIR will evaluate whether ROGS and associated Common Safety Methods remain effective, with consideration of the UK's EU exit, wider rail reforms, and the establishment of Great British Railways.

We updated our Health and Safety Crowding Position Statement, originally published in 2019,

which articulates our stance on crowding on trains and at stations and sets expectations for operators and passengers. Although no significant new research prompted fundamental changes, we refined the language and presentation to improve clarity and accessibility for all stakeholders.

Since 1 January 2021, following the UK's departure from the EU, the French safety regulator L'Etablissement Public de Sécurité Ferroviaire (EPSF) has assumed National Safety Authority (NSA) responsibilities for the French half of the Channel Tunnel (Channel Fixed Link). Meanwhile, the binational Intergovernmental Commission (IGC) remains the NSA for the UK half. Throughout the year, we supported the DfT and French counterparts in developing updated binational legislation reflecting the post-Brexit regulatory landscape. The new legislation, signed by both governments in April 2025, is expected to come into effect later in the 2025 to 2026 work year, at which point NSA responsibilities for the UK half of the Channel Fixed Link will transfer from the IGC to ORR.

Workshops were held in December 2024 and January 2025 with tunnel duty holders to help facilitate a smooth and effective transition through understanding the implications of the changes.

Reviewing our frameworks and processes

We continue to improve our internal processes such as enhancements to our case management system and inspection report template and continuing to review our approach to our Strategic Risk Chapters. We are also launching a new Learning and Development Strategy to improve the way we provide training and learning to all our staff, regardless of whatever stage of their career they are at.

We completed an internal review into the railway interoperability regulations and how they interact with safety requirements. This highlighted a number of areas where we can improve processes now, and issues for further consideration when there is an opportunity to review interoperability requirements. We worked closely with DfT and RSSB on the review of National Technical Specification Notices (NTSNs), and the revised standards have now been published. We are now working with RSSB to produce new NTSN Guidance and to provide our input to their review of the overall standards framework, which will result in changes to the Railway Standards Code and Manual.

We reported on our work to review how businesses assess the costs and benefits of their safety interventions which is available at – Assessing the costs and benefits of health and safety

interventions in rail An industry-wide review. We wanted to understand how and when cost estimates are compiled for safety initiatives, and whether reasonable practicability is systematically tested. Through working closely with stakeholders, we identified important learning points to support best practice in assessing the costs and benefits of safety related decision making and improve consistency across the industry and within Network Rail.

Case Study 8: Enhancing regulatory effectiveness through digital innovation – ORR's inspection app

Modernising our approach to health and safety regulation

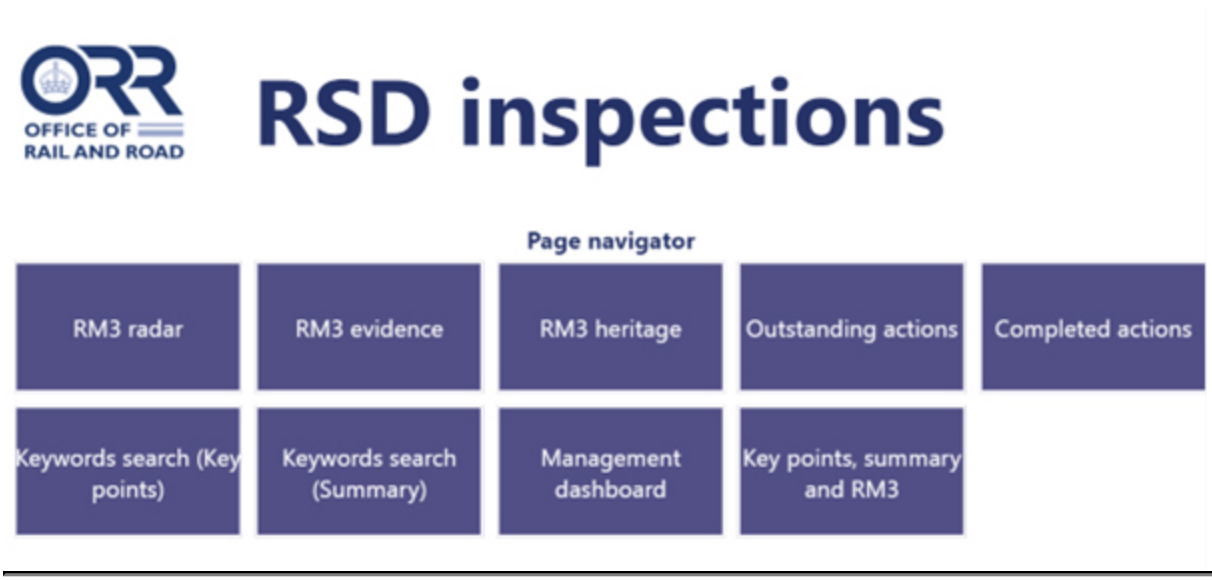
As a modern, enabling regulator, we are committed to continuously improving how we carry out our regulatory activities. A key part of that is investing in digital tools that help us work more effectively and make better use of safety data. One of our most significant developments this year has been the launch of a new Inspection App, designed to transform how we record, analyse, and act on findings from our frontline inspections.

We developed the app using Microsoft Power Apps and integrated it within our Microsoft Teams environment. It enables our inspectors to record inspection data in real time using mobile devices, apply RM3 ratings on-site, and feed that information directly into our broader risk and quality assurance systems.

The app is already delivering key benefits:

- Efficiency: Our Inspectors can now log inspections via phone, tablet, or desktop, streamlining admin and freeing up more time for regulatory work.
- Smarter insight: Structured data collection supports trend analysis and helps us identify and address emerging risks more quickly.
- Accountability: Consistent record-keeping strengthens internal governance and improves the clarity of our external reporting.
- Improved communication: A shared digital platform supports better collaboration internally across teams and in our engagement with external stakeholders.

By standardising how we capture inspection data across the country, the App is helping us build a stronger, more reliable evidence base. This supports more targeted interventions, better safety outcomes, and a clearer demonstration of our impact as a modern, risk-focused regulator.



Working with other regulators, safety authorities, and industry bodies to share best practice and aid continuous improvement

Our international engagement

Our international engagement strategy reflects the post-EU Exit environment and aligns with government priorities, enabling us to focus efforts for maximum benefit to ORR and the wider Great Britain rail industry. Throughout the year, we responded to numerous international requests for engagement and participated in key forums, including the International Railway Safety Council in Vienna in September 2024. We also delivered RM3 training to Turkish State Railways and continued to provide operational support to Northern Ireland under the refreshed Agency Agreement with the Department for Infrastructure Northern Ireland, which remains the safety authority for the region.

We maintained observer status at National Safety Authority (NSA) Network meetings, led by the European Union Agency for Railways, keeping abreast of developments relevant to the Channel Tunnel and domestic railway regulation.

Our bilateral engagements with international counterparts – including Australia, Central Japan Railway Company, and the Transport Safety Investigation Bureau of Singapore - facilitated valuable exchanges of knowledge and best practices. We continued active collaboration through

the International Liaison Group of Government Railway Inspectorates (ILGGRI), for which we provide the secretariat, fostering a global forum to share expertise on health and safety matters.

Our external health and safety committee

We chaired three meetings of the Railway Industry Health and Safety Advisory Committee (RIHSAC), which brings together representatives of employers, employees, passengers, and government bodies to offer advice and constructive challenge to our Board on health and safety matters. The range of topics discussed included mental and occupational health; passengers' health, safety, and welfare needs during stranded train incidents; weather-related risk management; development of technology around level crossings, particularly flow footbridge initiative from Network Rail; outcomes of the annual ORR risk profiling exercise; Rail Sector Transformation Programme (RSTP) – safety assurance update; and annual health and safety reports published by ORR, RSSB and RAIB.

Our engagement and collaboration with other regulators

We collaborated regularly with the Health and Safety Executive (HSE) across regulatory policy and operational domains of shared interest. Our inter-agency agreements with HSE, covering safety by design and road vehicle incursion enforcement, were reviewed and found effective in supporting our regulatory objectives.

Following HSE's post-implementation review of the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR), we reviewed and updated our policies, guidance, and reporting arrangements for the rail sector to enhance clarity, remove outdated material, and improve usability of reporting forms. Internal RIDDOR processes were also documented with greater precision.

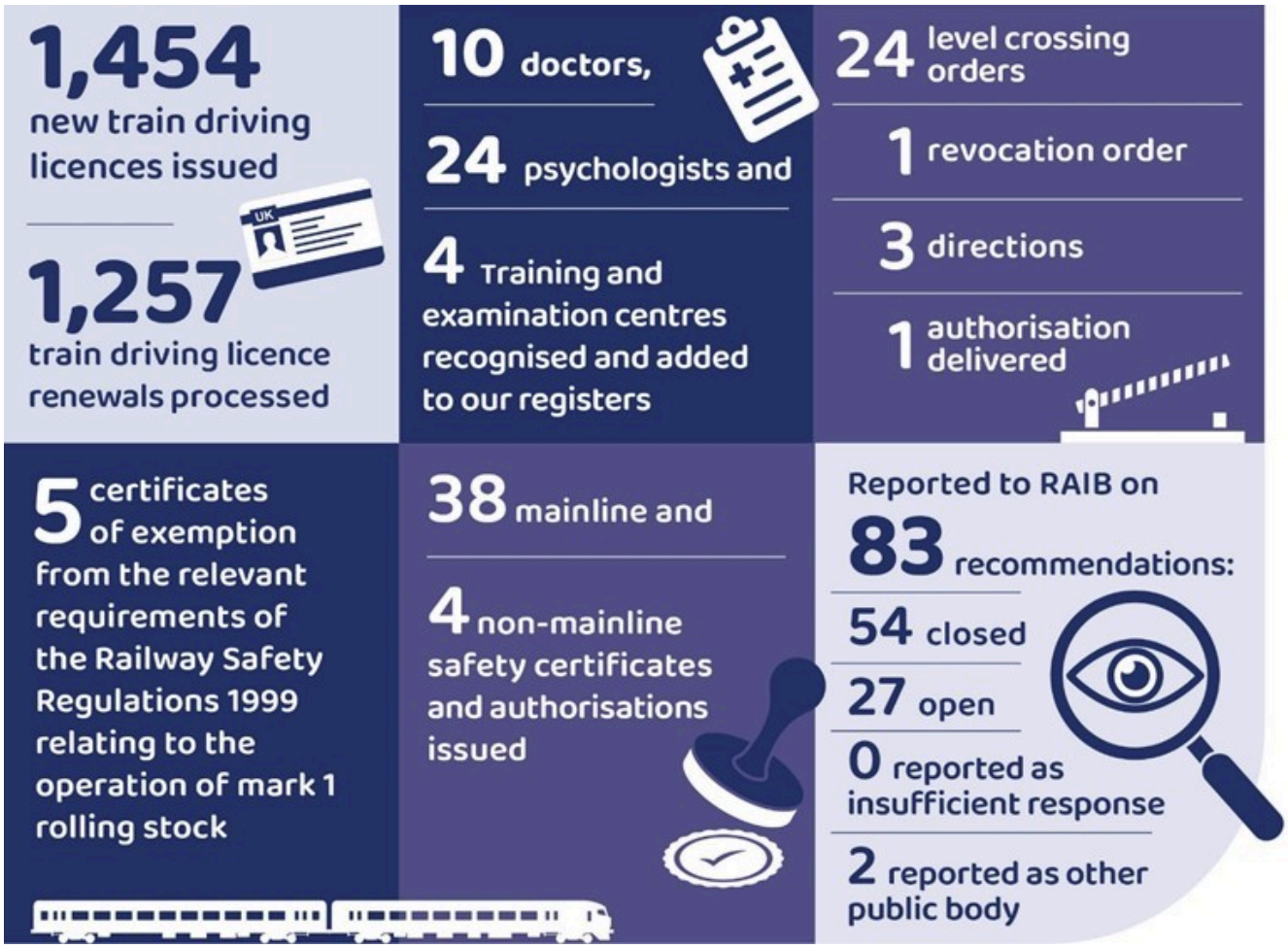
Collaboration with the Office for Nuclear Regulation (ONR) led to the revision of the ORR and ONR Memorandum of Understanding (MoU), which defines cooperation in policy development, inspection, enforcement, and allocation of responsibilities. The updated MoU, endorsed by both organisations' Boards, adopts a higher-level, less prescriptive framework supported by a new operational guidance document for inspectors.

We submitted our first report under the Growth Duty Performance Framework for the year ending March 2023, detailing how we balance economic growth promotion with health and safety duties. A cornerstone of this approach is proactive engagement with regulated businesses to understand

regulatory impacts and collaborative efforts with other regulators to share best practices. We remain active participants in the UK Health and Safety Regulators' Network (UKHSRN) and its Innovation Subgroup, which supports government growth and net zero strategic objectives.

Delivering a range of statutory work

We grant a range of health and safety permissions and approvals, and in some cases, we have statutory deadlines to meet for processing requests and issuing our decisions. This work is important because it helps provide an effective framework for railway safety and, in the case of train drivers, establishes a common regime for licensing. We met all our service standards in these areas for the year. 2024 to 2025 saw:



Source: ORR

Our key enforcement activities

Investigation and enforcement

Our enforcement activities play a critical role in upholding health and safety standards across the rail industry. We use statutory enforcement powers to address serious risks and legal breaches. Improvement Notices are issued where there are significant breaches of health and safety law requiring remedial action, while Prohibition Notices are served when activities pose an imminent risk of serious personal injury. In 2024 to 2025, we issued four Improvement Notices. We served no Prohibition Notices.

Where necessary, we pursue prosecutions to ensure compliance with legal obligations. During the year, we successfully concluded a number of prosecutions under the Health and Safety at Work etc. Act 1974:

- Severn Valley Railway (Holdings) PLC was fined £40,000 following an incident in which a worker fell 13 feet onto a concrete floor, sustaining serious injuries including multiple fractures. The employee had been working alone without a safety harness. Our investigation found that the company failed to implement industry-standard measures for working at height, and lacked appropriate planning, instruction, and supervision.
- In February, Network Rail Infrastructure Limited was fined £3.75 million following the tragic deaths of two trackworkers at Margam East Junction in 2019. A third worker narrowly avoided serious injury. Our investigation uncovered systemic and wide-ranging safety failures in the company's arrangements for protecting those working on or near the tracks. As a result, we issued two Improvement Notices in July 2019, requiring Network Rail to introduce preventive and protective measures.
- Also in February, Network Rail was fined an additional £3.41 million after pleading guilty to breaches of health and safety legislation in connection with a fatal incident in Surbiton in 2021. A trackworker in a four-person team was fatally struck by a train. Our investigation found deficiencies in work planning, monitoring, and supervision.

There has been a significant reduction in trackworker safety-related near-misses, declining from approximately 65 incidents per year to around 25. This improvement reflects Network Rail's compliance with Improvement Notices issued in 2022, as well as organisational learning from the Margam and Surbiton incidents. We continue to work with Network Rail to ensure full

implementation of its CP7 Trackworker Safety Strategy, which focuses on eliminating the need for track access, deploying innovative technologies, improving workforce competence, and enhancing process control and governance. We will continue to monitor progress through our engagement and liaison activities during 2025 to 2026.

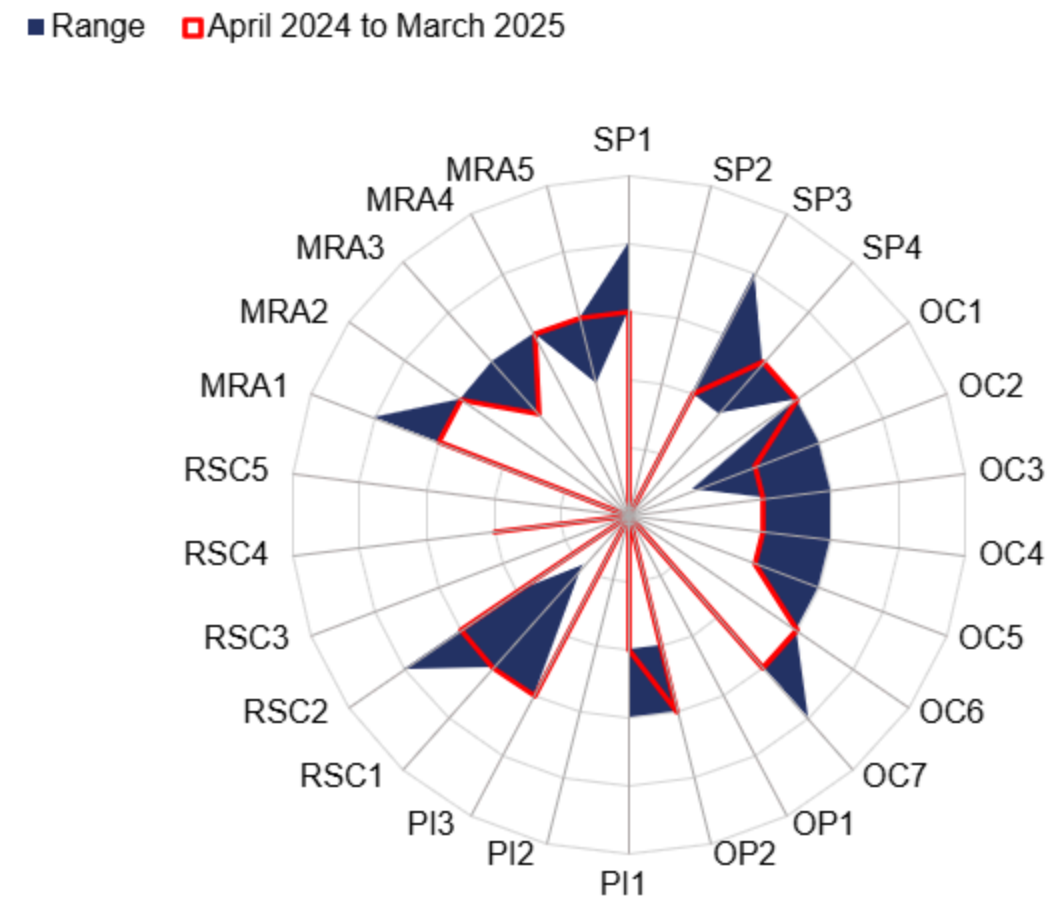
A major focus this year has been supporting the Fatal Accident Inquiry (FAI) into the derailment at Carmont, Aberdeenshire, in 2020, in which three people tragically lost their lives, including two rail staff and one passenger. We continue to attend preliminary hearings in preparation for the final hearing, expected later in 2025.

We also contributed to the FAI into the 2018 death of a pedestrian at Saughton Tram Crossing in Edinburgh, providing evidence and working in close coordination with the Crown Office and other stakeholders.

Finally, we supported the multi-agency investigation into the October 2024 train collision near Talerddig, Powys, in which two Transport for Wales passenger services collided. One passenger died, four people were seriously injured, and eleven others required hospital treatment. Our investigation into this incident remains ongoing.

Annex A: RM3 diagrams

Figure A1: Network Rail 2024 to 2025 RM3 assessment



Source: ORR

Table A1: Network Rail 2024 to 2025 RM3 assessment

Code	Description	Assessed level (April 2024 to March 2025)	Minimum	Maximum
SP1	Leadership	3	3	4

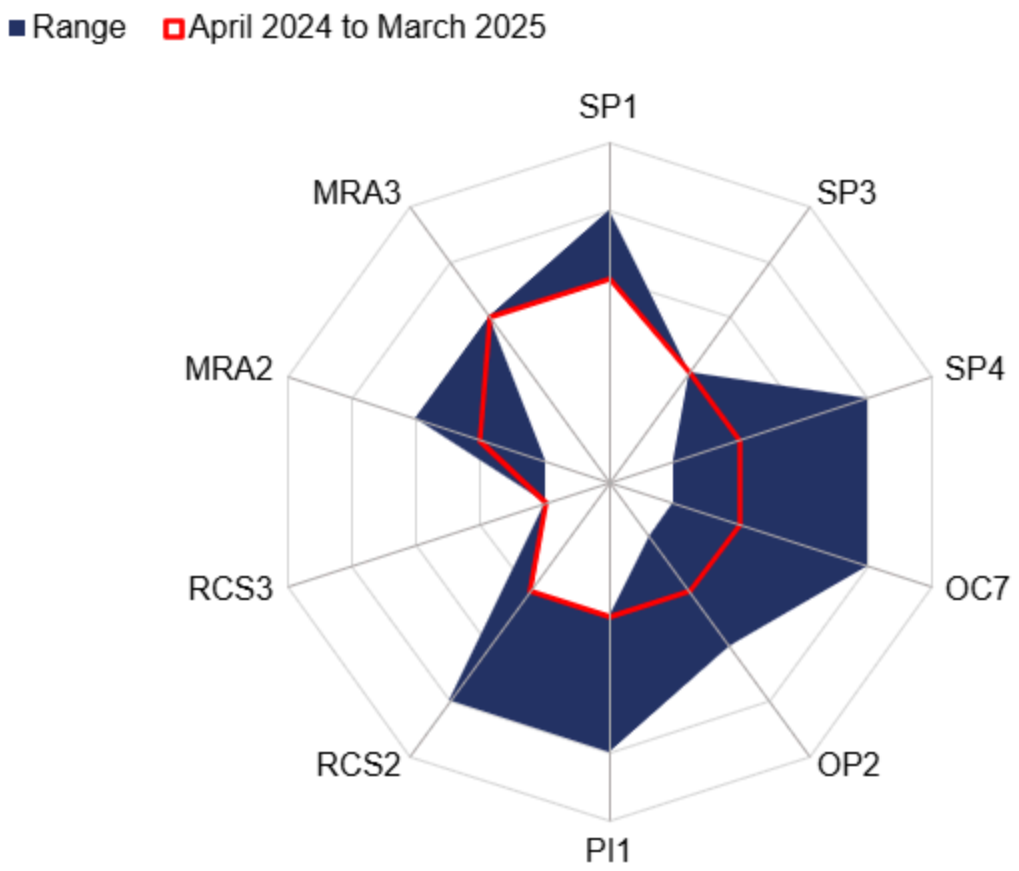
Code	Description	Assessed level (April 2024 to March 2025)	Minimum	Maximum
SP2	Health and Safety Policy	Not assessed		
SP3	Board Governance	2	2	4
SP4	Written Safety Management System	3	2	3
OC1	Allocation of Responsibilities	3	3	3
OC2	Management and Supervisory Accountability	2	1	3
OC3	Organisational Structure	2	2	3
OC4	Internal Communication Arrangements	2	2	3

Code	Description	Assessed level (April 2024 to March 2025)	Minimum	Maximum
OC5	System Safety and Interface Arrangements	2	2	3
OC6	Organisational Culture	3	3	3
OC7	Record Keeping, Document Control, and Knowledge Management	3	3	4
OP1	Worker Involvement and Internal Co-operation	Not assessed		
OP2	Competence Management System	3	2	3
PI1	Risk Assessment and Management	2	2	3
PI2	Objective and Target Setting	Not assessed		

Code	Description	Assessed level (April 2024 to March 2025)	Minimum	Maximum
PI3	Workload Planning	3	3	3
RSC1	Safe Systems of Work Including Safety Critical Work	3	1	3
RSC2	Management of Assets	3	2	4
RSC3	Change Management (Operational, Process, Organisational, and Engineering)	Not assessed		
RSC4	Control of Contractors and Suppliers	2	2	2
RSC5	Emergency Planning	Not assessed		
MRA1	Proactive Monitoring Arrangements	3	3	4

Code	Description	Assessed level (April 2024 to March 2025)	Minimum	Maximum
MRA2	Audit	3	3	3
MRA3	Incident Investigation	2	2	3
MRA4	Management Review	3	3	3
MRA5	Corrective Action	3	2	3

Figure A2: Heritage and minor railways 2024 to 2025 RM3 assessment



Source: ORR

Table A2: Heritage and minor railways 2024 to 2025 RM3 assessment

Code	Description	Assessed level (April 2024 to March 2025)	Minimum	Maximum
SP1	Leadership	3	3	4
SP3	Board Governance	2	2	2

Code	Description	Assessed level (April 2024 to March 2025)	Minimum	Maximum
SP4	Written Safety Management System	2	1	4
OC7	Record Keeping	2	1	4
OP2	Competence Management System	2	1	3
PI1	Risk Assessment and Management	2	2	4
RCS2	Management of Assets	2	2	4
RCS3	Change Management	1	1	1
MRA2	Audit	2	1	3

Code	Description	Assessed level (April 2024 to March 2025)	Minimum	Maximum
MRA3	Incident Investigation	3	3	3