

Oliver Stewart
RAIB Recommendation Handling Manager



28 March 2024

Mr Andy Lewis
Deputy Chief Inspector of Rail Accidents

Dear Andy,

RAIB Report: Track worker struck by a train near Chalfont & Latimer Station, Buckinghamshire on 15 April 2022

I write to report¹ on the consideration given and action taken in respect of the recommendations addressed to ORR in the above report, published on 15 May 2023.

The annex to this letter provides details of actions taken in response to the recommendations and the status decided by ORR. The status of recommendations 1 and 3 is '**Closed**'. The status of Recommendations 2 and 4 is '**Open**'.

ORR will advise RAIB when further information is available regarding actions being taken to address these recommendations.

We will publish this response on the ORR website.

Yours sincerely,

¹ In accordance with Regulation 12(2)(b) of the Railways (Accident Investigation and Reporting) Regulations 2005

Initial consideration by ORR

1. All 4 recommendations were addressed to ORR when the report was published on 15 May 2023.
2. After considering the recommendations ORR passed all 4 recommendations to London Underground Limited asking them to consider and where appropriate act upon them and advise ORR of its conclusions. The consideration given to each recommendation is included below.
3. This annex identifies the correspondence with end implementers on which ORR's decision has been based.

Recommendation 1

The intent of this recommendation is that London Underground Limited improves its understanding and management of the risk from people being struck by trains while working on the line during traffic hours.

London Underground Limited should review how it assesses and controls the risk of people being struck by trains while working on the line during traffic hours. This review should consider available research and good practice from other parts of the rail industry and should specifically examine:

- If its current understanding of risk accounts for the uncertainty inherent in the use of controls that rely principally on human performance for their effectiveness (such as compliance with training, rules and procedures).
- Whether the current risk control measures in place need to be modified, or additional measures adopted, to reduce the risk to staff working on the track so far as is reasonably practicable. This should include consideration of the way in which safe systems of work are planned, documented and briefed to staff.
- Defining and delivering appropriate non-technical skills training for track workers.
- Working with organisations that provide agency or contract staff to seek improvements in team working between internal and external staff.

London Underground Limited should develop a timebound programme for the implementation of any appropriate measures identified

ORR decision

4. London Underground Ltd (LUL) carried out a review, assessing the risks and controls of staff carrying out planned maintenance being struck by trains. The review considered existing protection arrangements, legislation and good practice elsewhere in the UK rail sector.
5. Based on the findings of the review, LUL will remove all track patrols from traffic hours to engineering hours (no passenger trains running) by 31 March 2024, apart from 2 patrols (within Network Rail boundaries), which will be removed in 2024/25. For interim measures for these two patrols, LUL will provide the PWT-TH

with additional information such as the condition of the cess, places of safety and any other lineside hazardous which may impact on the protection arrangements.

6. Traffic Hours (TH) access for Operational staff from 1st April 2024 will require a Track Access Leader (TH) to make arrangements with the Line Controller to ensure that no trains are running through the area and traction current is switched off.

7. A programme to implement the same system for TH access for Engineering and Maintenance staff (including unplanned access for fault response) is underway with a start trial date of 30 September 2024, and trial review in December 2024.

8. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, London Underground Ltd has:

- taken the recommendation into consideration; and
- has taken action to close it.

Status: Closed.

Information in support of ORR decision

9. On 10 August 2023 London Underground Limited provided the following initial response:

In LU, the only team to access the track during traffic hours to carry out planned maintenance and/or inspections is the LU Asset Performance Delivery (APD) Track team. None of our other maintenance teams access the track during Traffic Hours to carry out planned maintenance and/or inspections.

As the LU Asset Performance Delivery Track is the only team to access the track during Traffic Hours to carry out planned maintenance and/or inspections, most of my response focuses on the action we have taken to assess and control the risks *for that team. I have also shared information on how we manage risks for other teams who access the track environment during Traffic Hours, e.g., some LU Asset Performance Delivery teams access the track during Traffic Hours in response to incidents and our operational teams may also be required to access the track during Traffic Hours in response to incidents.*

I have set out how we control the risk relating to track access for our LU Asset Performance Delivery Track team, LU operational teams and other TfL teams who are required to access the LU track environment below.

LU Asset Performance Delivery Track

Prior to the publication of the RAIB investigation report into this incident, the SHE team carried out a review on how the LU APD Track team assesses and controls the risk of people being struck by trains while working on the line during traffic

hours. The review assessed the adequacy of the existing protection arrangements, compliance with legislation and the current arrangements, research and good practice implemented across the UK railway industry.

The review was focused on planned track maintenance, and not on activities when staff are required to access the track to attend to failures during the day whilst trains are running. It was carried out in the context of 19 relevant incidents across the rail industry, those which the RAIB has investigated since it became operational in 2005.

As a result of this review, we concluded that we should move more Traffic Hour track patrols to Engineering Hours. This ensures that we are more aligned the hierarchy of risk controls, our Rule Books and the direction taken by the railway industry for traffic hour working. Some sections of the running lines continue to warrant inspections during Traffic Hours, such as track with bullhead rail, jointed running rails, areas with poor drainage, etc.. These are limited to short sections. This will be covered by supplementary patrols, which will only be undertaken where we are assured the rules for safely accessing track can be fully implemented.

I have attached this review (Appendix 3: Review of traffic hours protection arrangements for planned track maintenance activities (February 2023)).

Action taken as a result of this review

At the time of the incident, 31 track patrols were carried out during Traffic Hours. As a result of this review, we have moved 23 of these Traffic Hours track patrols to Engineering Hours track patrols based on the risks identified in the review above and the route risk assessments (further detail set out in my response to Recommendation 4). This includes all Metropolitan line track patrols routes, with the exception of three small sections that require Network Rail interface possession agreements on nights, and one route (the Chesham Single) that is over 6 km long. For the latter, an access point is required at the midway point of the section. A gate has been installed and a new stairway will be installed. Once this is completed, the Chesham Single route track patrol will move from Traffic Hours to Engineering Hours track patrols.

All five of the East End District line Traffic Hours track patrols moved to Engineering Hours track patrols as soon as SMA06/7 CBTC signalling system went live. The District line has one remaining Traffic Hours track patrol route (on the West End of the line). This will be moved to Engineering Hours, following the same approach as set out below.

For the eight LU routes that still require to be moved from Traffic Hours to Engineering Hours, these routes on all the lines have all been re-written into

smaller track patrol routes and are ready to move onto Engineering Hours. This process has been slower than originally planned due to our extended consultation with our Trades Unions H&S representatives on the change from Traffic Hours to Engineering Hours working.

Our next steps for those routes which are still being patrolled during the Traffic Hours are:

- *End September 2023: Track Managers will complete their assessment of remaining Traffic Hours track patrols and will capture accommodation, access and equipment needs associated with moving to Engineering Hours track patrols.*
- *August-September 2023: we will continue to engage and consult with our trade union colleagues during this time. Our trade union health and safety representatives do not support the move from Traffic Hours track patrols to Engineering Hours track patrols. They have discussed this with the ORR (Emily Gelder). They have also submitted a 'Failure to Agree' in line with the LU Health & Safety Machinery. This 'Failure to Agree' will be heard by the interim LU Director of Asset Performance & Delivery in September. This process is the final step in consultation and a decision will be made about next steps after that meeting in September.*
- *October 2023: the outcome of the assessments which are currently underway will be combined and will be discussed by the LU APD Track senior team to agree next steps.*
- *End October 2023: finalise the timescale for moving all remaining Traffic Hours track patrols to Engineering Hours track patrols. As noted above, the timescale will depend on the accommodation, access and equipment and will reflect our recruitment and training forward look. We will share our implementation plan with you (in early November) once we have finalised it.*

Consideration in moving to Traffic Hours track patrols

The move from Traffic Hours track patrols to Engineering Hours track patrol required us to carry out significant recruitment (as the time during Engineering Hours is shorter than Traffic Hours, so the patrols cover a shorter distance. This means we need more people to do these patrols). Ensuring our new colleagues have appropriate training and competence is a key step to ensure they can do this role. Our ability to deploy teams during Engineering Hours has been limited by training capacity, so we have supplemented the training team with three secondees from the LU APD Track team to provide more training capacity. Once trained, these secondees will allow us to double the number of people who can be trained each period from January 2024.

We continue to recruit. We recognise the risk that we may be recruiting from our partners in the supply chain, so we plan, where possible, to recruit from outside of the rail industry. At this point, we will extend the duration of the training course to ensure all colleagues new to the rail industry are fully trained and competent in their roles.

As new colleagues join the LU Asset Performance & Delivery Track team, this allows us to move other lines from Traffic Hours track patrols to Engineering Hours track patrols.

There are a number of other factors which influence the move from Traffic Hours track patrols to Engineering Hours track patrols. We have to adapt our staff accommodation to facilitate the extra staff. We are currently considering staff accommodation options on the Metropolitan line to accommodate the extra staff and we are undertaking works on Edgware Road Cabin to facilitate moving people into that site. We will install a new cabin at Hainault for the Central line team (a concrete slab is being installed). This will be in place by the time we have trained all new members of this team. Training of the new team to our required standard is a six-month process. The District line track team are reviewing options for staff accommodation, including potentially using the West Ham Bus Garage for use on the East End of the line.

Non-Technical Skills

One aspect of Recommendation 1 in the RAIB Investigation Report which is not covered in the review paper noted above (Appendix 3) is the reference to “defining and delivering appropriate non-technical skills training for track workers.” While this was not considered in our review, we are taking action to ensure that our track colleagues have appropriate Non-Technical Skills.

We are currently close to completion of our review of LU Track training. We have carried out a Risk Based Training Needs Analysis as part of this review, and as a result, Non-Technical Skills will be part of LU Track training in the future. As well as Non-Technical Skills, the new LU Track training course will also include case studies, as well as technical and behaviour-related videos.

The draft new training course will be finished in September 2023, at which point we will start to consult with our teams and our trade union colleagues. We plan to pilot the new training course by November 2023 and will develop a full implementation plan once we review the feedback from the pilot. In the interim, we are ensuring that our track colleagues have appropriate Non-Technical Skills by training them via TfL’s online LU Non-Technical Skills course. This course is specific to the railway industry and is aimed at operational staff. We plan that all our track colleagues will have completed this training by December 2023.

Working with our suppliers

The RAIB investigation report recognised the importance of working closely with organisations that provide agency or contract staff, highlighting the importance of this to drive improvements in team working between internal and external staff.

We recognise that, to provide a safe working environment for our colleagues and agency/ contract colleagues, we must work closely with the organisations who provide staff to perform protection roles and with those who perform protection roles – Protection of Workers on Track (PWT).

We have regular discussions about safety with the two PWT Framework supplier organisations who provide staff who perform protection roles – Cleshar and Morson. Monthly Contract Review meetings are held with each of the two supplier companies, with input from the LU team from the Contract Manager and the Compliance & Licensing Manager from the LU Access team and from the LU Safe Track Access Culture & Behaviour Project Manager. The suppliers are encouraged to raise safety issues or concerns at these meetings. Safety incidents and near misses are discussed, and actions are tracked through to close-out of recommendations. Our suppliers present data concerning their safety performance during the period and share any safety initiatives they have undertaken. Both LU and the supplier companies share pertinent safety-related information, such as Briefing Notices, Safety Alerts or bulletins.

In December 2021, London Underground initiated, in collaboration with Cleshar and Morson, a series of PWT Safe Track Access Briefings for colleagues from Cleshar and Morson. These sessions were hosted by the LU Asset Performance & Delivery Director, TfL Head of SHE LU and several members of the Morson and Cleshar senior team, including the Morson Operations Director (Rail), Morson Operations Manager, Morson Head of Health & Safety Quality & Environment, Cleshar Managing Director, Cleshar Head of Health, Safety, Quality & Environment and Cleshar Senior Compliance Manager.

Over three sessions, we listened to 240 PWTs from our two PWT Framework supplier organisations.

Key themes were captured from the PWTs during these three sessions. These included

- *A strong feeling that the role of the PWT wasn't fully respected by some people.*
- *A fear that that a PWT would be sanctioned if they report safety incidents or if they refused to undertake activities that they knew contravened rules.*
- *Feedback about the key elements of the role, e.g., familiarity in the area, particularly in complex track environments, etc.*
- *Feedback that PWTs often received late notification of their shift and location.*

Several PWTs noted the positive actions already taken, such as the provision by LU of Connect radios to Cleshar and Morson PWTs to ensure most effective communication with other colleagues.

As a result of these sessions, we took action to improve safety and culture amongst our PWT Framework community. This included communicating the importance of reporting near misses. Personal commitments were made by the directors and senior managers present (including the LU Asset Performance & Delivery Director, TfL Head of SHE LU, Morson Group Director Head of Health & Safety Quality & Environment and Cleshar Managing Director) that safety incidents would be investigated fairly. We have continued to emphasise the importance of reporting in our ongoing conversations with our PWT framework community.

To understand whether our actions have made any significant impact, we surveyed our Framework PWTs in January 2023, comparing it to a survey undertaken in 2021. More of our Framework PWTs responded to the survey (50% response rate in January 2023, compared to 21% response rate in 2021). The results were positive and included

- *87% of Framework PWTs responded positively to the statement “Action is always taken when I raise or report a safety concern”*
- *90% of Framework PWTs responded positively to the statement “Have you felt more encouraged to report or speak up about unsafe conditions, practices or behaviours in the last 12 months?”*
- *83% of Framework PWTs responded positively to the statement “I am recognised and commended by managers for acting and working safely’ (compared to 44% in 2021).*
- *92% of Framework PWTs responded positively to the statement “a safety incident or near miss occurs, I can confidently report it without fear of repercussions.”*
- *79% of Framework PWTs agreed that conditions have improved in the last year.*

We took specific action to address the feedback (from the PWTs at the three sessions in December 2021) about late notification of their shift and location. We recognised that late notification of shifts can have an impact on safe decision making, alertness and fatigue, and we set a goal for improving notification for PWTs. We have now significantly reduced the number of last-minute notifications to work, and we have significantly increased the average amount of notification that framework operatives receive for their shifts. This has been achieved through working with requestors of protection to encourage earlier bookings, and through internal process change. Most operatives are now notified of their shifts at least 48 hours in advance, which improves their work-life balance and reduces safety risks related to late notification to work. Evidence of this change is set out in Appendix 4 (Improvement in shift notification to PWTs: Traffic Hours and Engineering Hours), which charts the increasing notification time provided to PWTs since April 2022.

We continue to work with our Framework Suppliers to improve safety and engagement with our suppliers and the PWTs. We continue to hold quarterly safety forums with the PWTs and have facilitated engagement with other LU and TfL teams, such as the Track Access Controllers, Service Control Managers and 4LM to further improve relationships and a positive safety culture.

A new framework contract is currently being tendered and, once it goes live in January 2024, the ongoing engagement to between LU and the PWTs will be an integral part of the contract mobilisation.

Engaging internal PWTs

The success of our Framework Safe Track Access Briefings resulted in LU running similar sessions for LU colleagues perform similar protection roles. Since November 2022, we have undertaken 40 Safe Track Access Briefings, in various locations, to over 390 LU employed PWTs. These sessions were completed recently, and feedback has been very positive.

In April 2022, prior to the start of the Safe Track Access Briefings for internal PWTs, we carried out a survey. The response rate was 38%.

The responses to the survey indicated positive attitudes regarding safety including:

- *98% of the respondents thought that colleagues working on the track understand and carefully follow the rules.*
- *96% feel that managers/supervisors are interested and concerned with everyone's safety.*
- *88% feel confident to report near misses or incidents without fear of repercussions or, feel encouraged to report or speak up about unsafe conditions, practices, or behaviours.*
- *85% feel that action is taken when a safety concern is raised.*

We will carry out a follow up survey in September 2023.

As with our Framework PWTs, we continue to engage with our internal PWT colleagues. We hold a regular Safety Awareness Day for all colleagues in the LU Asset Performance Delivery team. The key Safety Awareness messages from the Safe Track Access Briefings have now been integrated into the APD Safety Awareness Day. The LU Safe Track Access team is working with the APD senior managers to develop a strategy to resolve some of the feedback issues received in the internal LU Safe Track Access Briefings, e.g.,

- *Challenge any poor Operational Communications (often known as safety critical communications in the rail sector) by the Track Access Control Centre (TACC) and LU Signallers*
- *Include the TACC and Service Control teams in future briefing sessions with internal PWTs to further improve relationships*

- *Increase near miss reporting using IE2, our safety reporting system, via targeted training sessions for PWTs*
- *Improve understanding of Operational Communications via targeted training sessions.*

Maintenance access to the track during traffic hours

As noted above, some LU Asset Performance Delivery teams may be required to access the track during Traffic Hours in response to incidents. Our rules and procedures for our maintenance teams' access to the track during Traffic Hours are set out in Rule Book 20 Engineering staff – Traffic Hours protection (Appendix 5) and Rule Book 21 Personal Safety on the Track (Appendix 6).

Many of the improvements outlined above, including engagement with our PWTs, contributes to our approach of ensuring that we create a positive safety culture which will ensure that our colleagues can and do report any concerns, which in turn will allow us to take action to improve safety.

Operational access to track during traffic hours

As noted above, while the majority of our track access on the Underground is undertaken by our engineering and maintenance teams, our operational colleagues need to access the track during Traffic Hours on occasion, usually in response to an incident.

A number of years ago, we recognised that access to the track during Traffic Hours poses a particular risk to our operational colleagues, and as a result, we instigated a project to make operational track access during Traffic Hours safer. Our approach has been, with consultation with operational teams and our trade union colleagues, to simplify LU rules for operational track access during Traffic Hours.

A new Rule Book was published on 1 April 2023 (Appendix 7: Rule Book: Track Access – Traffic Hours, page 92 onwards) with an effective date of 1 April 2024. This new Rule Book, which currently does not have a number, simplifies our track access rules and will replace a number of other LU Rule Books and Rule Book appendices. It will be numbered (in line with our usual procedures) when those Rule Books are withdrawn. The 12-month period gives LU time to train all relevant operational staff (those involved in track access). They will obtain a new track access qualification.

Access to LU track by non-LU teams during traffic hours

As noted above, the majority of access to the LU track environment is undertaken by LU teams, or those working directly for LU teams. However, other TfL teams also access the LU track for valid reasons, in relation to our capital projects. We have shared the key learning from this incident across TfL, including with our capital project teams.

The risks associated with access to LU track by our capital project teams, or by their suppliers, are assessed, and appropriate controls are put in place. The teams work in line with the established rules set out in the relevant LU Rule Books. Access to track during traffic hours is strictly limited to situations where it is unreasonable for those individuals to access the track during engineering hours.

10. On 15 March 2024 London Underground Limited provided the following update:

We have changed our working arrangements to significantly reduce the working activities which require colleagues to access the track during traffic hours by moving all, but two, of our track patrols to engineering hours. By the end of March 2024 we will have moved 29 out of 31 traffic hour track patrols on the running railway to engineering hours.

Within this significantly improved context, London Underground colleagues from different functions nevertheless access the track during traffic hours for various essential operational reasons. I have set out below the action we have taken to ensure that all teams have a clear understanding of the risk from people being struck by trains while working on the line during traffic hours and the action we have taken to reduce the safety risk to our colleagues.

While the incident on 15 April 2022 involved LU's maintenance team, and significant actions have been taken by the maintenance team since then (as outlined below), we have also made changes to our rules relating to how our operational colleagues access track during traffic hours. I have outlined these changes below first, as they will come into effect for our operational colleagues on 1 April 2024. We have started a programme to also implement this rule for our maintenance and engineering teams. Timescales for this programme is set out below.

Operational access to LU track during traffic hours

We have reviewed the protection rules used by operational staff and concluded that the risk of being hit by a train could be improved. As described in our letter of 10 August 2023, we identified the potential to improve safety by changing our rules for operational colleagues accessing the LU track during traffic hours. From 1 April 2024, London Underground will implement a new rule for operational staff accessing the track which creates a consistent approach for our operational colleagues to track access through the Line Controller and guarantees that Traction Current is off and train movements have ceased.

The Track Access Leader Traffic Hour (TAL (TH)) procedure will only apply in traffic hours and where traction current has been switched off and train movements have ceased. The line controller will be responsible for putting the relevant traction current and train movement arrangements in place before authorising track access.

TAL (TH) qualified colleagues will liaise directly with the line controller and will record the traction current and train movement arrangements in their TAL (TH) logbook. As an additional safety measure, colleagues will use a Current Rail Indication Device

(CRID) before accessing the track. The new rule is set out in OSN 169 - Changes to the way London Underground operational staff access the track during traffic hours (Rule Book 22) (Appendix 4).

Engineering and maintenance access to LU track during traffic hours

Since the incident at Chalfont & Latimer on the 15 April 2022, and as shared in our letter of 10 August 2023, we have reviewed the protection arrangements used by engineering and maintenance staff. This allowed us to assess the adequacy of the existing protection arrangements, compliance with legislation, research and good practice implemented across the UK railway industry. As part of that review, we referred to the Network Rail Standard NR/L2/OHS/019 (Appendix 3).

LU's protection rules for staff accessing the track during traffic hours are documented in a suite of Rule Books. These arrangements are well established and are based on legacy rules that have been in place for many years and are reliant on competent licenced staff consistently implementing the rules. The rules to prevent staff from being struck by a moving train or vehicle are controlled by the following two methods:

- *keeping out of the way of trains*
- *stopping trains.*

As part of our review, we will now move to a position where we only access the track when train movements have stopped and ideally with traction current switched off. Access to the track when traction current is on will be very closely managed, with clear arrangements in place for managing risk, including comply with the requirements in the Electricity at Work Regulations relating to justifying why it is not possible to work when the traction current is off. These arrangements are similar to the arrangements explained for Track Access Leader for operational teams (above). The programme to implement this rule for our maintenance and engineering teams is underway and timescales are set out below.

We reviewed the hierarchy of protection and warning systems used by Network Rail (Network Rail Standard NR/L2/OHS/019) and considered each system to see if it could be used on London Underground Infrastructure. A summary of our review is set out in Appendix 3.

The review concluded that the systems for warning staff, either technological or personnel, would not be suitable for use on LU infrastructure. We intend therefore to continue the use of engineering possessions for planned engineering and renewal work. For access to asset failures and emergencies/incident response, we intend to use the protection arrangements based on the principles of train movements being stopped and, where practical, traction current switched off. We consider, the stopping of train movements and switching traction current off to be the safest level of protection and this would be the equivalent of the highest level of protection as described in the Network Rail Standard NR/L2/OHS/019. We consider that this will

ensure that those accessing the track during traffic hours can do so safely. We are happy to discuss this further with you if you wish to do so.

Non-Technical Skills

The RAIB report recommended that LU define and delivering appropriate non-technical skills training for track workers. Following the report, we introduced a requirement that all staff working in the Asset Performance Delivery (APD) Track team who access the track during traffic hours, must complete TfL's online "Non-Technical Skills - London Underground" ezone training course. Currently, 76% of the LU APD Track team have completed the training. We aim to have this training completed by June 2024.

We have reviewed the competence standard and training material for the LU Protecting Workers on the Track Traffic Hours course. We have undertaken a Risk Based Training Needs Analysis (RBTNA), in line with RSSB requirements, of the course material and have incorporated Non-Technical Skills requirements into the training. We have started consultation on the changes to the training course with our trade union colleagues.

In line with full and appropriate consultation, we would nevertheless aim for these discussions to be completed within six months

The RAIB also recommended that LU work with organisations that provide agency or contract staff to seek improvements in team working between internal and external staff.

The majority, if not all, agency staff provided by external organisations to support traffic hour working on the running lines, was to support track patrolling. As we are planning to move all traffic hour patrolling to engineering hours, this resource will no longer be required. We will however continue to work collaboratively with our suppliers to ensure we improve safety and relationship for engineering hour working.

We set out the improvements made in working with our contractor suppliers and contractor colleagues in detail in our letter of 10 August 2023 (Appendix 2).

Action to address Recommendation 1

- *Introduce new Track Access Leader Traffic Hour protection procedure implemented for operational colleagues: 1 April 2024 (Appendix 4).*
- *Maintenance and Engineering staff to start trial of the use of the Track Access Leader Traffic Hour rule: 30 September 2024*
- *Review findings of the trial of the Track Access Leader for Maintenance and Engineering staff : December 2024*
- *Complete review of the rule associated with the use of lookouts on the running line from Rule Book 20 and the associated training: 31 December 2024*

We will continue to update you on these actions as they progress, noting that timescales may change depending on the outcome of the trial and lookout review.

Recommendation 2

The intent of this recommendation is for London Underground Limited to minimise the requirement for staff to work on the line in traffic hours.

London Underground Limited should carry out a review of track work undertaken during traffic hours. This review should consider the amount of, and reasons for, traffic hours working and the additional risks to which it exposes staff when compared to working where lines are closed to traffic.

London Underground Limited should develop a timebound programme for the implementation of any opportunities identified to reduce work undertaken in traffic hours and take appropriate actions to control the associated risks where such a reduction is not possible.

ORR decision

11. LUL has started a review of track work undertaken in traffic hours, with the aim of minimising access to the network while trains are running. So far, the review has covered traffic hours track patrols and is now considering other activities that may involve track access, such as vegetation management. LUL expect to complete the review by 30 May 2024. Once the review has been completed, we will consider if the recommendation can be closed.

12. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, London Underground Ltd has:

- taken the recommendation into consideration; and
- is taking action to close it.

Status: Open.

Information in support of ORR decision

13. On 10 August 2023 London Underground Limited provided the following initial response:

Our response to Recommendation 1 addresses Recommendation 2 also. Our review of track work undertaken during Traffic Hours has resulted in a significant reduction in the requirement for our colleagues to work on the running line in Traffic Hours. The movement of the track patrols from Traffic Hours to Engineering Hours ensures that our colleagues who are patrolling this route will not be exposed to risks associated with passenger train movements. We recognise the specific risk associated with the transition from Traffic Hours to Engineering Hours, and we manage that risk by ensuring that the correct Engineering Hours protection rules are followed which will assure all traffic hour train movements have ceased and the traction current is off.

We have also taken steps to reduce the risks to our operational colleagues who access the track during Traffic Hours by turning traction current off when they

access track (as set out in our new Rule Book, Appendix 7) which eliminates the risk of a colleague coming into contact with electricity and the risk of being hit by a moving train.

14. On 15 March 2024 London Underground Limited provided the following update:

Planned track patrolling

In early 2023, following a review of the safety risks associated with track patrolling, a decision was made to move the current track patrolling inspections to engineering hours where the risk of being hit by a moving train is significantly reduced. Moving the patrols to engineering hours also is safer with regard to the risk of harm or injury from electricity.

To facilitate this move, we have designed, and risk assessed, new shorter routes so they can be completed in the shorter period of time that's available in Engineering Hours. By 31 March 2024, there will only be 2 patrols that will remain on days during traffic hours. These patrols have boundaries with Network Rail who have different protection arrangements to LU. We are working with Network Rail to ensure we are assured that the protection arrangements, during engineering hours, are effective and efficient to ensure staff safety. We aspire to make the change to the remaining 2 patrols during 2024/25 and will work closely with Network Rail to achieve this but are dependent on the Network Rail planning cycle. In the meantime, we will review those patrols to see how we can increase safety provision.

The above arrangements already have significantly reduced the number of staff that require track access during traffic hours. These patrols are the only planned maintenance activities that require track access during traffic hours.

As you have appreciated from our discussions, this was a significant move which required lengthy consultation with our trade union representatives. We completed our consultation with our trade unions regarding our decision to move traffic hour patrolling to engineering hours on 30 October 2023 at a Directors Referral meeting. A letter detailing the findings of the Director's Referral is attached in Appendix 5.

Responding to incidents (unplanned access)

Whilst we endeavour to run a reliable safe railway service, there will be occasions when colleagues must access the track to attend to failures and fix trackside equipment. We will be trialling the new Track Access Leader approach (set out in our response to Recommendation 1) for maintenance and emergency response staff in the coming months. This will allow these colleagues to safely access the track environment to respond to incidents or failures.

As part of this programme, we are considering whether the role of Track Access Leader will eliminate the requirement to keep the role of Protecting Workers Traffic Hours (PWT-TH) or Individual Working Alone (IWA). We have analysed data supplied by the LU APD Signals Incident Response team to gauge the access that is required during traffic hours. The LU APD Signals Incident Response team uses a PowerApp to record justification if track access during traffic hours requires traction current to be switched off and if the access can be deferred to engineering hours.

Over a period of 14 months, 435 entries were recorded. 375 of these instances required access to the running lines in traffic hours, with the rest requiring access to depots and sidings. 175 instances of access (of the 375 instances) were undertaken with traction current on and with train movements. A review of the commentary, for each instance of track access with traction current on and train movements, showed justification was given as staff were able to work safely from a designated place of safety, e.g. in the cess or behind a physical barrier. We intended to adapt the PowerApp to broaden the scope of use to all LU APD colleagues. This will help us determine if Track Access Leader protection rules can be used in all circumstances for maintenance and engineering colleagues.

If Track Access Leader cannot be used for a particular situation, then protection arrangements will be provided by a PWT-TH. However, the default arrangement will be to apply the Track Access Leader rule first. After nine months, we will review the data to understand if the role of Track Access Leader has been effective and if the role of PWT-TH can be removed.

Some of our teams need to access the permanent way to undertake survey and scoping work. This work does not always require them to be within 2m of the track, e.g. the inspection of civil assets and vegetation. Staff undertaking this type of work usually walk behind the cable run or within the cess, when safe to do so, but on occasion, need to walk through areas of limit clearance, when safe to do so and sighting times are maintained. We are reviewing these activities, to identify if this work can be undertaken in engineering hours.

Action to address Recommendation 2

- *All track patrolling activities to be moved to Engineering Hours, bar the two track patrols where we interface with Network Rail, by 31 March 2024*
- *Move the remaining two patrols, which have boundaries with Network Rail, to engineering hours by June 2025, or earlier dependant on Network Rail planning.*
- *For the 2 patrols with Network Rail boundaries, we will provide the PWT-THs with additional information such as the condition of the cess, places of safety and any other lineside hazardous which may impact on the protection arrangements*
- *Review protection arrangements by staff undertaking non-intrusive inspections or surveys, which require these colleagues walk through areas of limit clearance and understand why these activities cannot be undertaken in engineering hours by 30 May 2024.*

Recommendation 3

The intent of this recommendation is to seek improvements in safety assurance and safety reporting on London Underground.

Taking into account the findings of this investigation, London Underground Limited should review its current processes for:

- Assuring that safe systems of work are being correctly planned, implemented and followed, and that the intended control measures to manage risk are performing as expected.
- Ensuring there is an effective reporting system which allows all staff to report incidents and accidents, so that safety issues are properly identified and appropriate and timely actions are taken in response.
- Fostering a culture that encourages all staff (employees and contractors) who work on or near the line during traffic hours to challenge and report unsafe practices without fear of any form of reprisal.

ORR decision

15. LUL have an Access Compliance Inspection strategy to gather intelligence on the performance of safe systems of work. The development of this strategy is tracked through ongoing liaison between ORR and LUL.

16. LUL continue to promote near miss reporting of all track access near misses through mechanisms such as a section in the traffic circular on the importance of reporting, promoting track access near miss reporting at the LU APD safety awareness session, and an LU safety stand down briefing during the engineering shift on the 20 March 2024.

17. LUL have appropriate measures in place to monitor the planning and implementation of safe systems of work through Access Compliance Inspection.

18. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, London Underground Ltd has:

- taken the recommendation into consideration; and
- has taken action to close it.

Status: Closed.

Information in support of ORR decision

19. On 10 August 2023 London Underground Limited provided the following initial response:

We have clearly defined rules in our Rule Books which are designed to ensure that our colleagues can access the track environment safely during Traffic Hours and Engineering Hours (Appendices 6, 8-11).

Our approach to assurance involves planned and ad-hoc checks to ensure that the Safe System of Work set out in our Rule Books are implemented and followed. Following the incident, we made changes to our monitoring activities.

We have a team of Access Compliance Inspectors (ACI) whose role is to assess compliance of those working on the track. Our ACIs regularly monitor staff undertaking protection duties on the running lines during Traffic Hours and Engineering Hours. This provides an independent and objective assessment of the effectiveness of the protection arrangements implemented. We have made arrangements for our Access Compliance Inspectors to monitor those remaining traffic hour track patrols from the cab of a passenger train. We are also developing a new risk based ACI Inspection Strategy. This will be implemented on the appointment of a new role – the Protection Inspection Manager. We will share details with you once we have a clear timescale and strategy.

The output of these inspections is reported through dashboards which record non-compliances, and the actual non-compliance. This allows us to identify key themes and address those issues. The team also record and recognise good practice and compliance by the PWTs. I have included an example of the dashboard in Appendix 12.

As part of our active monitoring programme, LU Track Managers now walk all routes as part of their regular review of the track patrol routes for which they are responsible. Information from their monitoring is recorded, I have included an example of the dashboard in Appendix 13.

As well as the monitoring set out above, as part of the LU Safe Track Access programme, we have just completed delivery of Safe Track Access Briefings to all maintenance colleagues who access the track. As noted above, these briefings have been very well received. As well as providing an informal refresher of our rules, the importance of reporting, etc., the briefings provide an opportunity for our track colleagues to raise any concerns, issues, etc. with independent managers.

Effective reporting system

The RAIB investigation report highlighted the importance of ensuring there is an effective reporting system. We fully recognise the importance of having effective reporting system which allows all staff to report incidents and accidents, so that safety issues are properly identified, and appropriate and timely actions are taken in response. We have a strong safety reporting culture in TfL.

As well as reporting safety incidents, TfL encourages colleagues to raise any safety related concerns, including raising a concern about something they have seen or experienced. There are many ways that this can be done including near miss reporting, raising faults or safety incidents through our well-established incident reporting system or speaking to line managers.

We understand that it is important to have a wide range of options for reporting incidents, including where an individual may not be comfortable in reporting incidents through our normal reporting channels. Individuals can raise concerns with their trade union H&S representatives, and we have a robust and structured H&S machinery to ensure concerns get addressed.

TfL subscribes to the Confidential Incident Reporting & Analysis System (CIRAS) – an independent and confidential reporting channel. CIRAS provides a

confidential reporting service across a range of transport modes including mainline rail, light rail, construction and buses as well as the transport supply chain. TfL has been a member of CIRAS since 2005, working in partnership to improve safety, health and wellbeing by making sure that TfL employees always have somewhere to raise their safety concerns.

Reporting: a specific focus on PWTs

As noted above, we recognise that, to provide a safe working environment for our colleagues and agency/contract colleagues who access the track, we must work closely with the organisations who provide staff to perform protection roles and with those who perform protection roles (i.e. PWTs). We recognise the importance of a safe culture where all staff who work on or near the line during traffic hours to challenge and report unsafe practices.

During the Safe Track Access Briefings that we have run with our PWT colleagues (internal colleagues and Framework suppliers), we emphasised the importance of reporting of incident and concerns. As noted above, we have provided reassurance to our PWT colleagues (internal colleagues and Framework suppliers) that their concerns will be taken seriously.

Our Access Compliance Team now also ensures that, as well as playing their compliance role, the Access Compliance Inspectors provide more advice and guidance to our PWTs, with a goal to educate and coach any issues identified and to work with the PWTs to rectify problems before their next shift. This has built trust between our Access Compliance Team and our PWTs, has improved safety behaviour and created a better safety culture.

The surveys of our own colleagues and Framework PWT colleagues indicate that they are confident in raising issues relating to unsafe practices (as detailed in our response above to Recommendation 1).

Culture

The RAIB investigation report highlighted the importance of fostering a culture that encourages all staff who work on or near the line during traffic hours to challenge and report unsafe practices

As noted above, we recognise that, to provide a safe working environment for our colleagues and agency/contract colleagues who access the track, we must work closely with the organisations who provide staff to perform protection roles and with those who perform protection roles (PWTs). We recognise the importance of a safe culture where all staff who work on or near the line during traffic hours to challenge and report unsafe practices and I have outlined above the action we have taken to foster a positive safety culture amongst our PWT community.

20. On 15 March 2024 London Underground Limited provided the following update:

Our Access Compliance Inspection strategy has evolved in recent years, broadening to encompass both Traffic Hours and Engineering Hours inspections, and to cover all

PWTs who work on the LU track (whether LU staff, PWTs on the PWT Framework, or other external PWTs).

We have recently appointed an Access Compliance Protection Inspection Manager who now leads our team of Access Compliance Inspectors (ACIs). This has allowed us to ensure our ACIs focus their inspections based on risk. The inspectors now work across 5 zones which will improve their deployment and allow us to cover more of the network. The inspectors now also provide a service where they will advise on protection arrangements at complex areas. Findings from inspections will be recorded and analysed to identify trends in non-compliances and also good practice. The role of the access compliance inspectors is being promoted and communicated across the business so awareness is raised of the important and beneficial work they do. If you are interested in understanding more about how the role of the Access Compliance team is evolving, we would be happy to arrange for you to meet the recently appointed Access Compliance Protection Inspection Manager.

We regularly promote reporting of near misses to LU teams. For traffic hour working, we have included a section in the traffic circular on the importance of reporting. We also promote track access near miss reporting at the LU APD safety awareness session, which are held weekly. We have also held over 40 PWT forums, with internal staff and framework supplied staff, where incidents are discussed and near miss reporting is promoted. As noted in our letter to you of 10 August 2023, our colleagues have reported increased confidence in raising safety concerns and issues, and in their confidence that appropriate action will be taken to improve their safety.

Action to address Recommendation 3

- *Develop a risk-based LU Access Compliance Strategy by 30 May 2024*
- *Continue to promote near miss reporting of all track access near misses, e.g. at the LU safety stand down briefing during the engineering shift on the 20 March 2024.*

Recommendation 4

The intent of this recommendation is that the cess is in an appropriate condition to be used as a designated place of safety on the Metropolitan line.

London Underground Limited should review its track assets on the Metropolitan line to ensure that, where the cess is expected to serve as a place of safety for staff working on the line, it is suitable for this purpose. This review should consider:

- whether there is sufficient space from passing trains
- the condition of the lineside
- obstructions which may cause staff to move closer to lines which are open to traffic on which trains may run.

ORR decision

21. The use of the cess as a place of safety will be significantly reduced as LUL moves track patrolling from traffic areas to engineering hours. LUL is reviewing the use of the cess as a place of safety for remaining operational and maintenance activities that may take place in traffic hours. LUL expect to complete the review by 30 May 2024. Once the review has been completed, we will consider if the recommendation can be closed.

22. After reviewing the information provided ORR has concluded that, in accordance with the Railways (Accident Investigation and Reporting) Regulations 2005, London Underground Ltd has:

- taken the recommendation into consideration; and
- is taking action to close it.

Status: Open.

Information in support of ORR decision

23. On 10 August 2023 London Underground Limited provided the following initial response:

As part of our review of risk associated with track access, we have considered the physical condition of the cess and ten-foot as places of safety. Some areas do not have level / flat walking conditions and there are locations where the physical dimensions do not meet the minimum requirements as required by our Category 1 Standard S1156 Gauging and Compliance and the Rule Book Support Information – Places of Safety. We recognise that the adequacy of the cess and ten-foot as places of safety can have an impact on the positioning of lookouts and therefore maintaining minimum sighting times.

To undertake a suitable and sufficient of the cess and ‘ten-foot’ as a place of safety, in accordance with the Rule Books, we developed a standard template for the track teams to undertake an assessment of the cess and ‘ten-foot’. The template, titled Traffic Hour Patrol – Route Risk Assessment Data Gathering (Appendix 14), has been used to identify the track hazards that could impact on a location being a place of safety and for reaching a place of safety. The template required the assessor to identify hazards in every 200-metre section of track. The hazards listed included underfoot conditions, infrastructure which could impair sighting (bridges / structures / cable runs / trees / vegetation), curves, track layout, gradients, storage of equipment, lineside spares, noise which could impair a person responding to an audible warning and newly installed assets such as 4LM signalling equipment. The information from these assessments have been collated and reviewed. As well as attaching the template in Appendix 14, I have also attached an example of a completed Route Risk Assessment (Appendix 15).

The outcome from this review of the cess as a place of safety was a trigger for moving some Traffic Hour track patrols immediately to Engineering Hour track patrols.

We recognise that the outputs from these Route Risk Assessments could be valuable for colleagues across LU and TfL who access the track. We are currently considering our options for making these Route Risk Assessments available to other LU and TfL colleagues in an online, user-friendly way which would allow us to share key information about our track infrastructure and environment.

24. On 15 March 2024 London Underground Limited provided the following update:

Action to address Recommendation 4

As we intend to change the rules to Track Access Leader Traffic Hours and the move of track patrols to engineering hours, the use of the cess as a designated place of safety will be significantly reduced. We will review the remaining small number of occasions that our colleagues who access track to ensure that we manage this risk effectively. We will complete this review by 30 May 2024.