

Safety, Sustainability and Human Resource Panel

Date: 16 November 2022

Item: Safety, Health and Environment Assurance Report

This paper will be considered in public

1 Summary

- 1.1 The purpose of this report is to give the Panel an overview of the effectiveness of the risk controls for Enterprise Risk 1 (ER1) – ‘Major safety, health or environmental incident or crisis’, based on second line of defence audit work by the Quality, Safety and Security Assurance (QSSA) team and third line of defence work by the Internal Audit team. Information is also provided on Enterprise Risk 12 (ER12) – ‘Asset condition unable to support TfL outcomes’ and Enterprise Risk 4 (ER4) – ‘Major Security Incident’ as they correlate to ER1 for Quarter 2 of 2022/23 (26 June to 17 September 2022) (Q2). For Q3 of 2022/23 (18 September to 10 December 2022) work will be mapped against the new Enterprise Risks (see Appendix 3).
- 1.2 Appendix 1 provides a list of audits undertaken in Q2. Audit reports issued are given a conclusion of ‘well controlled, adequately controlled, requires improvement or poorly controlled’. Individual findings within audit reports are rated as high, medium or low priority.
- 1.3 Performance data is provided on progress against the audit plan, audit ratings, rating trends by Enterprise Risk and business unit and progress against actions, with comparisons provided across the last two years.

2 Recommendation

- 2.1 **The Panel is asked to note the paper.**

3 Annual Quality, Safety and Security Assurance Audit Plan

- 3.1 The annual QSSA audit plan contains a series of second line of defence audits that address ER1, ER4 and ER12.
- 3.2 The 2022/23 annual audit plan was finalised in March 2022 in consultation with the Safety, Health and Environment (SHE), Operations, Maintenance, Engineering Directorates and Security teams to identify where assurance is required or where there are performance or compliance concerns. Each audit has an identified sponsor within TfL to whom assurance is provided, typically a management system or risk owner or an assurance function. In Q2 audit sponsors were consulted on the draft 2022/23 audit plan for Q3 and Q4 of 2022/23 (11 December 2022 to 31 March 2023) to ensure it reflects current risks and assurance needs. The audit plan is reviewed every six months for greater flexibility and an agile approach to changing business demands.

4 Work of Note this Quarter

- 4.1 ER1 along with all Level 0 Enterprise Risks has been revised and presented to the TfL Executive Committee, TfL Board and the Audit and Assurance Committee in Q1 of 2022/23 (1 April to 25 June 2022). The overall risk assessment ratings for ER1 remain the same. The environmental elements of ER1 will be captured in Enterprise Risk 3 'Environment including climate adaptation' as part of the review of all revised Level 0 risks.
- 4.2 As of Q3 all audits will be mapped to the applicable Level 0 risk from the list of revised Enterprise Risks (see Appendix 3). The previous Level 0 risk ER12 'Asset condition unable to support TfL outcomes' will become a Level 1 risk and these audits will be reassigned to the Level 0 Enterprise Risk 6 'Deterioration of operational performance'.
- 4.3 Internal Audit have two audits in progress on the reporting and procurement of a digital monitoring and assurance system. There were no ER1 Internal Audit reports issued in Q2.
- 4.4 A total of 29 second line QSSA audits were delivered in Q2, this is 44 per cent of the annual plan for 2022/23 and is therefore on track for the target of 85 per cent for year end (see Appendix 1 for the full detail of audits completed in Q2). Three audits were concluded as 'poorly controlled' in Q2, all have agreed and tracked action plans in place:
- (a) London Underground (LU) Pumps Competence Management: Key elements of the pumps competence management system were not in place.
 - (b) LU Civils Competence Management: Non-conformances identified in a previous audit remained in relation to the document and quality control processes. A contributor to this is the continued absence of Internal Verification activities and a key Competency Assurance and Quality Manager role being vacant; and
 - (c) LU Off Track Drainage Management: The location of all assets could not be verified and some surveys or inspections were not completed as required.
- 4.5 Three audits were concluded as 'Requires Improvement', all have agreed and tracked action plans in place:
- (a) LU Fire Safety Compliance: Significant progress has been made to improve the governance of fire safety; however further process improvements are required to ensure their effectiveness;
 - (b) London Overground Alstom Depot Competence Management: Gaps had been identified in the effective control and review of risks, and the assurance of training and competence of staff involved in the movement of rail vehicles within the depot. It could not be assured that actions raised from previous investigations and audits had been completed; and

- (c) LU Power Competence Management: Some requirements of R0623 A6 'LU Competence Management System', and PR0200 A2 'Power & Electrical – Competence and Licensing', have not been satisfied. This affects compliance with Office of Rail and Road guidance on competence management systems.

- 4.6 Fourteen audits were concluded as Adequately Controlled or Well Controlled, with nine Integrated system audits which are not rated.
- 4.7 A common issue was identified in the competence audits where the quality or absence of a risk-based training needs analysis (RBTNA) weakened the competence management system and assurance or verification arrangements. This was raised with the LU Skills and Development team who will provide the resource and methodology to work collaboratively with the technical specialist maintenance teams to ensure the RBTNA are correctly recorded and inform assurance activities.
- 4.8 In Q1 and Q2 the QSSA team have been working on an improved approach to audit planning for 2023/24 with key stakeholder colleagues in TfL. The new approach will structure the QSSA assurance planning and reporting around the management system content for Engineering, Maintenance, SHE and Security. Using this approach there will be a direct link between assurance activities, TfL's risk controls and key legal requirements.
- 4.9 Planning audit work around the management system provides a more proactive approach, ensuring the full range of subjects and requirements in the management system are considered and reducing the reactive influence of known problems or recent issues. Similarly, by reporting assurance against the management system it will show common trends and themes across different teams and highlight any subject areas that are not currently being assured. A fundamental requirement is that this model has the ability to incorporate risk and performance data from stakeholders and also reflect where assurance is provided by other teams or systems to ensure efficiency of resource. This will also provide a clearer picture of what key controls are assured and any gaps in assurance.
- 4.10 The breakdown of the Q2 audits by risk is as follows:
 - (a) 20 audits were completed against ER1 in Q2: nine Integrated Systems Audits of LU (not rated) and 11 topic audits;
 - (b) seven audits were completed against ER4 in Q2; and
 - (c) two audits were completed against ER12 in Q2.

5 Cancelled and Deferred Work

- 5.1 There were no audits cancelled or deferred in Q2.

6 Performance and Trends

- 6.1 The removal of Covid-19 operational restrictions, i.e. not able to do site visits, resulted in an increase in audits completed for Q3 of 2021/22 to Q2 of 2022/23 compared to the same quarters in 2021/22 (97 compared to 75). There were no identifiable trends when comparing the profile of audits carried out or audit conclusions across the relevant Chief Officer teams.
- 6.2 Comparing audit conclusions against the associated Enterprise Risks over the two years, the distribution of conclusions by risk is broadly consistent, indicating there has been no significant change in risk profile identified by our audits.
- 6.3 The graphs in Appendix 2 show there was an increase in the number of audits completed against ER1 in the last four quarters compared with the previous year. Conversely, there was a reduction in the number of audits completed against ER12 in the last four quarters compared with the year prior to that. There are differences in the number of audits undertaken against individual risks when comparing years. However, when looked at over a longer two to three year period fluctuations even out. This indicates no specific long term trends in control weaknesses across the risks.
- 6.4 There had been a steady increasing trend of actions been closed on time which is now starting to plateau: steadying from 68 to 41 per cent during Q1 and Q2. In response we have increased and escalated our reporting on overdue actions to senior management. There has been a small increase in the number of actions granted extensions (in compliance with our procedure and against a small criteria of reasons) from 13 to 17 per cent across Q1 and Q2.
- 6.5 There are currently 45 overdue actions which has decreased from a peak of 68 during Q1. It is noted that the actions from four audits in four different areas of TfL make up 60 per cent of the total number of significantly overdue actions. Actionees receive routine reminders from the Audit team and overdue actions are escalated to the applicable management teams to try and resolve. Chief Officers also receive reports that include overdue actions within their teams which the Director of Risk and Assurance discusses with them in quarterly meetings. Further reporting on them will now also be provided to the Audit and Assurance Committee.
- 6.6 The greatest number of overdue actions is in the Chief Operating Officer's (COO) team which is where most of our audits are conducted. The COO's team has been actively monitoring and reporting on overdue actions and this has had a positive impact on closing overdue actions.

7 Improving SHE Assurance Tools and Processes

- 7.1 SHE are launching iAuditor, a brand-new tool that will help people complete SHE inspections and assurance checks within their work areas. Most inspections and assurance processes are paper-based or held locally. This restricts wider visibility of findings, correlation of information and reporting. Over a number of phases we will be rolling-out iAuditor to different areas of the organisation, with phase one launched on 31 October 2022. This project is part of the wider SHE Management System (SHEMS) improvement programme and aligns with current SHE priorities to help mature SHE culture, simplify and enable people to do the right thing in relation to SHE.
- 7.2 As we migrate existing SHE assurance processes to iAuditor, legacy data from the Supplier Assessment Tool has been extracted to make it easier to perform some analysis. This provides us with six years' of assurance data related to construction suppliers. The data is currently being analysed to ensure any valuable insight can be shared.
- 7.3 Drafting of the SHE Assurance and Monitoring section of the new SHEMS has begun. This section of the SHEMS will include information on how to provide assurance that key SHE requirements for all SHEMS topics are being met.

List of appendices:

Appendix 1 – QSSA Audits Completed in Q2 against ER1, ER4 and ER12

Appendix 2 – QSSA Audit Data

Appendix 3 – Revised TfL Enterprise Risks

List of Background Papers:

None

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Appendix 1 – Quality, Safety and Security Assurance Audits Completed in Quarter 2 of 2022/23 against ER1, ER4 and ER12

ER1 Major Safety, Health or Environmental incident or crisis

Directorate	Ref.	Audit Title	Objective	Conclusion	Summary of Findings
Asset Performance & Facilities	22 751 U	LU Jubilee Northern and Piccadilly: Compliance with Institution of Railway Signal Engineers (IRSE) Competence Requirements	To assess the LU signaller competence management system for compliance against the IRSE requirements	Well Controlled	Processes were in place and implemented in accordance with the IRSE requirements.
Asset Performance & Facilities	22 752 U	Supplier Audit - Morson Protection Services	To provide assurance that Morson are providing competent protection staff in accordance with contractual, Quality, Environmental, Safety and Health (QUENSH) and LU Standards	Well Controlled	Morson was found to be managing and providing competent protection staff/support activities in accordance with the contract QUENSH conditions and LU Standards.
Project & Programme Delivery	22 728	Projects and Programmes Directorate Client Duties (Construction Design and Management Compliance)	To seek assurance that management actions from the previous Poorly Controlled audit (20 721) have been effective regards Client Duties for construction work being undertaken in accordance with legislation and internal guidance	Adequately Controlled	An improved level of compliance with Pathway requirements was demonstrated, noting the complexity of some of the projects sampled. Two issues have been identified regarding communication and record keeping.
Rail and Sponsored Services	22 724	London Overground: Arriva Fatigue Management	To seek assurance that the Arriva fatigue risk management system is compliant with the Office of Rail and Road (ORR) Guidance. Assess the effectiveness of Arriva fatigue management arrangements and controls	Adequately Controlled	Arriva have developed a fatigue risk management system in line with ORR guidance but there are still some areas to improve. An internal gap analysis audit was conducted in 2021. This audit has raised four medium priority findings to address the gaps in the current fatigue risk management system.

Directorate	Ref.	Audit Title	Objective	Conclusion	Summary of Findings
Asset Performance & Facilities	22 725	LU Mechanical Compliance with Fluorinated Greenhouse Gases Regulations 2015	To seek assurance that LU is compliant with statutory requirements on control of Fluorinated Gas	Adequately Controlled	Extensive controls have been implemented to ensure the governance of Fluorinated Gas equipment meets the requirements of the Fluorinated Greenhouse Gases Regulations 2015.
Asset Performance & Facilities	22 740	REW Quality of Signalling Equipment Overhaul	To assess compliance with quality requirements for overhaul of legacy equipment critical to safe operation of the railway	Adequately Controlled	REW was found to be generally working in compliance with requirements. Issues raised related to audits not taking place and isolated technical issues
Rail and Sponsored Services	21 812	LO Alstom Competence Management - New Cross Gate Depot	To seek assurance that Alstom is managing competence of Train Operators on London Overground infrastructure at New Cross Depot	Requires Improvement	Gaps have been identified in the effective control and review of risks, and the assurance of training and competence of staff involved in the movement of rail vehicles within the depot. It could not be assured that actions raised from previous investigations and audits had been completed.
Asset Performance & Facilities	22 727	LU Power Competence Management	To assess the competence management system compliance with ORR Guidance and internal standards	Requires Improvement	Some requirements of R0623 A6 'LU Competence Management System', and PR0200 A2 'Power & Electrical – Competence and Licensing', have not been satisfied. This affects compliance with ORR guidance on competence management systems.
Chief Operating Officer	21 769	LU Fire Safety Compliance	To examine LU's approach to overall fire safety, including assessing effectiveness of the management system, legal compliance and effectiveness of assurance regimes	Requires Improvement	Significant progress has been made to improve the governance of fire safety; however, further process improvements are required to ensure their effectiveness.
Asset Performance & Facilities	22 713	LU Pumps Competence Management	To assess the competence management system compliance with ORR guidance and internal standards	Poorly Controlled	Key elements of the pumps competence management system were not in place, it was therefore not possible to assure that those maintaining the assets are deemed competent to do so.

Directorate	Ref.	Audit Title	Objective	Conclusion	Summary of Findings
Asset Performance & Facilities	22 717	LU Civils Competence Management	To assess if actions have been effectively embedded following the previous Poorly Controlled audit of Earth Structures and look at the wider management of civils competence	Poorly Controlled	Non-conformances identified in the previous audit remain in relation to the document and quality control processes as per the Civil Engineering Competence Management System framework. A key contributor to this is the continued absence of Internal Verification activities and a key Competency Assurance and Quality Manager role being vacant.

Integrated Systems Audits

Directorate	Ref.	Audit Title	Objective	Conclusion	Summary of Findings
Asset Performance & Facilities	22 714	Ruislip Depot Integrated Systems Audit	To provide assurance that key requirements contained in the management system are being met	Not Rated	66% Conformance, 41 Green, 7 Amber, 14 Red (compliant, minor non-compliance, major non-compliance)
Asset Performance & Facilities	22 715	District Signals Integrated Systems Audit	To provide assurance that key requirements contained in the management system are being met	Not Rated	49% Conformance, 23 Green, 1 Amber, 23 Red (compliant, minor non-compliance, major non-compliance)
Customer Operations -LU	22 705	Paddington Area Integrated Systems Audit	To provide assurance that key requirements contained in the management system are being met	Not Rated	64% Conformance, 38 Green, 2 Amber, 19 Red (compliant, minor non-compliance, major non-compliance)
Customer Operations -LU	22 706	Walthamstow Central Area Integrated Systems Audit	To provide assurance that key requirements contained in the management system are being met	Not Rated	84% Conformance, 49 Green, 2 Amber, 7 Red (compliant, minor non-compliance, major non-compliance)
Customer Operations -LU	22 707	Waterloo Area Integrated Systems Audit	To provide assurance that key requirements contained in the management system are being met	Not Rated	76% Conformance, 44 Green, 0 Amber, 14 Red (compliant, minor non-compliance, major non-compliance)
Customer Operations -LU	22 708	Bank/Holborn Area Integrated Systems Audit	To provide assurance that key requirements contained in the management system are being met	Not Rated	66% Conformance, 38 Green, 2 Amber, 18 Red (compliant, minor non-compliance, major non-compliance)

Directorate	Ref.	Audit Title	Objective	Conclusion	Summary of Findings
Customer Operations -LU	22 709	Northern Service Control Integrated Systems Audit	To provide assurance that key requirements contained in the management system are being met	Not Rated	59% Conformance, 20 Green, 3 Amber, 11 Red (compliant, minor non-compliance, major non-compliance)
Customer Operations -LU	22 710	Queens Park Area Integrated Systems Audit	To provide assurance that key requirements contained in the management system are being met	Not Rated	81% Conformance, 43 Green, 1 Amber, 9 Red (compliant, minor non-compliance, major non-compliance)
Customer Operations -LU	22 711	Cockfosters Area Integrated Systems Audit	To provide assurance that key requirements contained in the management system are being met	Not Rated	85% Conformance, 45 Green, 1 Amber, 7 Red (compliant, minor non-compliance, major non-compliance)

ER4 Major security incident

Directorate	Ref.	Audit Title	Objective	Conclusion	Summary of Findings
Bus Operations	22 742	PCI DSS Compliance Audit: Victoria Coach Station (VCS)	To seek assurance that the VCS is operating in compliance with the Payment Card Industry Data Security Standards (PCI DSS) v.3.2.1 and additionally Tfl's contractual obligations to its Acquiring Banks	Adequately Controlled	The VCS was found to be compliant to the PCI DSS.
Bus Operations	22 744	PCI DSS Compliance Audit: Bus Stop Closures	To seek assurance that the Bus Stop Closure is operating in compliance with the PCI DSSv.3.2.1 and additionally Tfl's contractual obligations to its Acquiring Banks	Adequately Controlled	The Bus Stop Closures was found to be compliant to the PCI DSS.
London Transport Museum	22 747	PCI DSS Compliance Audit: Tfl and London Transport Museum Operations Centre	To seek assurance that the London Transport Museum (LTM) Operations Centre are operating in compliance with the PCI DSS v.3.2.1 and additionally Tfl's contractual obligations to its Acquiring Banks	Adequately Controlled	The LTM Operations Centre was found to be compliant to the PCI DSS.
London Transport Museum	22 748	PCI DSS Compliance Audit: Tfl & London Transport Museum Shop	To seek assurance that the LTM shops are operating in compliance with the PCI DSS v.3.2.1 and additionally Tfl's contractual obligations to its Acquiring Banks	Adequately Controlled	The LTM Shop was found to be compliant to the PCI DSS.
Strategy & Chief Technology Officer	22 743	PCI DSS Compliance Audit: Staff Travel	To seek assurance that the Staff Travel is operating in compliance with the PCI DSS v.3.2.1 and additionally Tfl's contractual obligations to its Acquiring Banks	Adequately Controlled	The Staff Travel was found to be compliant to the PCI DSS.
Chief Operating Officer	22 741	PCI DSS Compliance Audit: Compliance, Policing Operations and Security	To seek assurance that Compliance, Policing Operations and Security (CPOS) is operating in compliance with the PCI DSS v.3.2.1 and additionally Tfl's contractual obligations to its Acquiring Banks	Adequately Controlled	The external PCI Qualified Security Assessor recommends that CPOS is exempt from the PCI DSS on the grounds that PCI does not supersede statutory legislation and bylaws (Section 17 of the Crime and Disorder Act 1998 applies). This is supported by both Tfl's PCI Internal Security Assessor and Acquiring Banks.
Chief Operating Officer	22 749	PCI DSS Compliance Audit: Art on the Underground (AoU)	To seek assurance that AoU is operating in compliance with the (PCI DSS v3.2.1 and additionally Tfl's contractual obligations to its Acquiring Banks	Adequately Controlled	AOU was found to be compliant to the PCI DSS.

ER12 Asset condition unable to support TfL outcomes

Directorate	Ref.	Audit Title	Objective	Conclusion	Summary of Findings
Asset Performance & Facilities	22 720	LU Off Track Drainage Management	To seek assurance that off-track drainage assets are suitably recorded in the asset database with an appropriate inspection and maintenance in place	Poorly Controlled	The location of all assets is not known, and some surveys/ inspections are not completed as required.
Asset Performance & Facilities	22 722	Northern Line Wheelset and Safety Device Maintenance (supplier audit: Alstom)	To assess whether Alstom are operating to the Train Maintenance Regime (TMR) and applicable standard and to provide assurance that wheelsets, fire extinguishers, detonators and short-circuiting devices are managed according to standards	Adequately Controlled	Alstom follows the TMR to manage the Northern line fleet. Some minor weaknesses were found that are unlikely to severely impact on the management of risks or meeting objectives. Three medium and one low priority findings were raised relating to calibration and maintenance management.

Appendix 2 – Quality, Safety Security Assurance, Audit Data

Table 1 shows Audit progress against half year plan Q1-2 2022/23:

7 audits were brought forward, 50 planned, 1 cancelled and 5 new requests during the Q1-2. Of the total 61 audits planned for Q1-2 of 2022/23, 64% per cent (39 audits) were completed.

Open audit actions – overall TfL performance (6-period trend):

25 actions closed on time in the last 6 rolling periods at 41% and 10 actions extended at 17%. Both closed on time and extended are showing downward trend. There are currently 45 overdue out of 113 open actions.

Table 2 shows Action management - overdue actions by directorate by overdue days:

Chief Capital Officer: 0 (60% closed on time (6-period))

Chief Customer and Strategy Officer: 1 (31-60 days), 2 (100+ days) (25% closed on time (6-period))

Chief Finance Officer: 0

Chief Operating Officer: 7 (0-30 days), 3 (31-60 days), 7 (61-100 days), 16 (100+ days) (32% closed on time (6-period))

Chief People Officer: 1 (0-30 days) (50% closed on time (6-period))

Chief SHE Officer: 3 (0-30 days), 4 (100+ days) (13% closed on time (6-period))

General Counsel: 1 (0-30 days) (50% closed on time (6-period))

Table 1 and 2 compares the number of audits completed by Chief Officer in the last four quarters and the four quarters prior to that. The overall trend is that profile of audits is consistent by Chief Officer and by conclusion, with the exception of the increase in Integrated Systems audits undertaken in the last four quarters as social distancing rules were removed.

Audit data status for Tables 1 and 2 as at 24 October 2022

Table 3 shows Audit Conclusion Trends by Chief Officer team (over four quarters):

Q3 2020/21-Q2 2021/22:

Chief Capital Officer: 2 poorly controlled, 1 requires improvement, 1 adequately controlled, 1 well controlled, 2 not rated (7 total)

Chief Customer and Strategy Officer: 1 poorly controlled, 10 adequately controlled, 3 not rated (14 total)

Chief Operating Officer: 3 poorly controlled, 11 requires improvement, 14 adequately controlled, 6 well controlled, 18 not rated (52 total)

Pan-TfL: 1 adequately controlled, 1 well controlled (2 total)

Q3 2021/22 to Q2 2022/23:

Chief Capital Officer: 1 requires improvement, 2 adequately controlled (3 total)

Chief Customer and Strategy Officer: 14 adequately controlled, 1 well controlled, 1 not rated (16 total)

Chief Operating Officer: 4 poorly controlled, 13 requires improvement, 25 adequately controlled, 5 well controlled, 30 not rated (77 total)

Pan-TfL: 1 not rated (1 total)

Table 4 shows Audit Conclusion Trends by Enterprise Risk (over 4 quarters):

Q3 2020/21 to Q2 2021/22:

ER1 Failure to prevent SHE incident or meet commitment: 3 poorly controlled, 8 requires improvement, 5 adequately controlled, 3 well controlled, 19 not rated (38 total)

ER4 Major Security incident: 18 adequately controlled, 4 not rated (22 total)

ER6 Loss of stakeholder trust: 1 not rated (1 total)

ER12 Asset condition unable to support TfL outcomes: 3 Poorly Controlled, 4 requires improvement, 3 adequately controlled, 4 well controlled (14 total)

Q3 2021/22 to Q2 2022/23:

ER1 Failure to prevent SHE incident or meet commitment: 3 poorly controlled, 10 requires improvement, 10 adequately controlled, 6 well controlled, 30 not rated (59 total)

ER4 Major Security incident: 1 requires improvement, 25 adequately controlled, 2 not rated (28 total)

ER12 Asset condition unable to support TfL outcomes: 1 Poorly Controlled, 3 requires improvement, 6 adequately controlled (10 total)

Tables 3 and 4 compare compares the number of audits completed by Enterprise Risk in the last four quarters and the four quarters prior to that. For the past four quarters there has been an increase in the number of ER1 audits and a decrease in ER12 audits. This appears to be consistent annual pattern when comparing annual plans.

Appendix 3: Revised Level 0 Enterprise Risks

The new list of 10 Enterprise Risks are as follows:

1. Inability to deliver safety objectives and obligations (ER1);
2. Attraction, retention, wellbeing and health of our employees (ER2);
3. Environment including climate adaptation (ER3);
4. Significant security incident (ER4);
5. Procurement including supply chain (ER5);
6. Deterioration of operational performance (ER6);
7. Financial resilience (ER7);
8. Delivery of TfL key investment programmes and projects (ER8);
9. Changes in customer demand (ER9); and
10. Governance and controls suitability (ER10).