

TRANSPORT FOR LONDON

SAFETY, HEALTH AND ENVIRONMENT ASSURANCE COMMITTEE

SUBJECT: QUARTERLY HEALTH, SAFETY AND ENVIRONMENT
PERFORMANCE REPORTS – QUARTER 2 2010/11

DATE: 1 DECEMBER 2010

1 PURPOSE AND DECISION REQUIRED

- 1.1 To inform the Committee of the key Health, Safety and Environment matters in the Modes during the last quarter. The Committee is asked to note the report.

2 BACKGROUND

- 2.1 Full reports on Health, Safety and Environmental activities and performance are produced annually. These quarterly reports are to update the Committee on any significant matters from the previous quarter.

3 INFORMATION

- 3.1 The Quarter 2 2010/11 Health, Safety and Environment Performance report for each Mode is attached as follows:

Appendix 1	London Underground
Appendix 2	Surface Transport
Appendix 3	London Rail
Appendix 4	Crossrail
Appendix 5	Corporate Directorates
Appendix 6	Health and Safety performance data summary

4 RECOMMENDATION

- 4.1 The Committee is asked to NOTE the report.

5 CONTACT

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**LONDON UNDERGROUND
QUARTERLY HEALTH, SAFETY AND ENVIRONMENT REPORT**

1 SUMMARY

What went well

- 1.1 Projects in the Safety, Environmental and Health Improvement Plans continue to progress in line with the project timescales.
- 1.2 All safety, environment and health performance indicators remained stable or improving with the exception of work related violence which is noted below.
- 1.3 The recycling targets for commercial and industrial waste (60 per cent) and construction and demolition waste (75 per cent) were exceeded for the second consecutive quarter. Of all the commercial and industrial waste collected, 73 per cent was recycled, together with 89 per cent of construction and demolition waste collected. The Tottenham Court Road Station Upgrade Project continues to report an excellent waste reuse and recycling rate, with 99 per cent of materials recycled in Quarter 2.
- 1.4 The long term improving trend in the percentage of staff taking time off due to stress, anxiety and depression continued in Quarter 2.
- 1.5 The improvement notice received from the Office of Rail Regulation (ORR), in Quarter 1, in relation to weaknesses in LU's safety verification process was confirmed closed by the ORR.

Areas for improvement

- 1.6 In Quarter 2 2010/11, incidents of work-related violence increased by six per cent (20 incidents) to 334 compared to 314 in Quarter 2 2009/10. This is a combination of the continuing economic pressures and improved reporting.
- 1.7 The London Fire and Emergency Planning Authority (LFEPA) issued an Enforcement Notice at Oval station as a result of routes to emergency exits not being kept clear, staff appearing to be confused about the dates to be entered on the evacuation register and the Compliance Fire Plan not having been subject to suitable maintenance. A corrective action plan is in place to meet the requirements of the notice.
- 1.8 The average number of public address system noise complaints has increased from 11 per period in 2009/10 to 17 per period in 2010/11. A number were in relation to chimes; these will be turned off at all stations. The timing of early morning and late evening announcements is also being reviewed.

Significant Plans for Next Quarter

- 1.9 The London Underground Biodiversity Plan will be published.

1.10 Noise sensitive location maps across London Underground (LU) will be issued to assist in project planning and management of noisy works.

2 PROGRESS AGAINST HSE PLAN

2.1 The LU Executive Committee receives an update on progress against actions in the Health, Safety and Environmental Improvement plans every four weeks. All objectives planned for 2010/11 are progressing to programme. Of note in Quarter 2 was the holding of twelve health fairs across LU. Good attendance and positive feedback continue for these health promotion events.

3 STATUS OF HSE MANAGEMENT SYSTEM

3.1 The Audit Team monitors compliance with London Underground's Health Safety and Environmental Management System (HSEMS). The audit programme for 2010/11 is progressing to programme (subject to controlled revisions). There were no safety critical adverse findings in Quarter 2.

4 HEALTH AND SAFETY PERFORMANCE

Health

4.1 There were 37,547 working days lost to sickness absence in Quarter 2, representing an average of 2.1 days per employee. For comparison, in the previous quarter and in the same quarter last year, there were 2.1 and 2.5 days absence per employee respectively. (The 2009/10 data set excludes the Chief Maintenance Officer's (CMO) directorate.) The top three categories of sickness absence in Quarter 2 were musculo-skeletal, mental health and gastrointestinal;

Days lost	Q2 2010/11	Q1 2010/11	Q2 2009/10
Sickness absence	37,547	37,161	32,910
Average / employee	2.1	2.1	2.5

4.2 There was an average of 1,089 working days lost (0.37 per cent) per period as a result of back pain this quarter compared to 901 days (0.42 per cent) lost in Quarter 2 2009/10. On average, 149 employees (0.85 per cent of staff) were absent per period in Quarter 2 2010/11 with back pain. These data include CMO employees. The long term trend remains stable.

4.3 There was an average of 1,698 working days (0.58 per cent of working days) lost per period due to stress, anxiety and depression this quarter. This compares to an average of 1,392 days per period (0.64 per cent of working days) in Quarter 2 2009/10. The long term improving trend has continued.

Safety

4.4 There were no accidental, medical or crime-related customer fatalities and no

employee fatalities in quarter 2 2010/11.

- 4.5 The number of customer major injuries in Quarter 2 was 22 (0.09 per million customer journeys). For comparison, there were 35 customer injuries in the previous Quarter (0.13 per million customer journeys) and 17 in the same quarter last year.

	Q2 2010/110	Q1 2010/11	Q2 2009/10
Customer major injuries	22	35	17
Rate/million customer journeys	0.09	0.13	0.07

- 4.6 There were two employee major injuries in Quarter 2, a rate of 0.11 per 1,000 employees.

	Q2 2010/11	Q1 2010/11	Q2 2009/10
Employee major injuries	2	2	3
Rate/1000 employees	0.11	0.11	0.19

- 4.7 There were 114 physical assaults on employees in Quarter 2. For comparison, there were 112 physical assaults on employees in the previous quarter.

- 4.8 There were 220 verbal assaults on employees in Quarter 2. This compares to 206 verbal assaults to employees in Quarter 2 2009/10.

- 4.9 During the quarter, 188 incidents on LU staff were reported to the British Transport Police (BTP). Of the incidents, 108 were physical assaults on staff with the alleged assailant identified in 48 of them. To date, of the 108 assaults, five (4.6 per cent) have resulted in a positive disposal not requiring court proceedings and the remainder are still in process.

	Q2 2010/11	Q1 2010/11	Q2 2009/10
Employee physical assaults	114	112	106
Employee verbal abuse	220	191	206
TOTAL	334	303	314
Rate/1000 employees*	29.49	26.31	28.59

**Number of employees only includes Chief Operating Officer's employees*

- 4.10 Progress of actions in the 2010/11 work-related violence action plan continues to programme. This includes enhanced communications to the public to reinforce LU's commitment to preventing work-related violence and follow up with enforcement action when an incident takes place and a revised training and briefing programme for LU employees.

- 4.11 The trend in the total number of signals passed at danger (SPADs) remains stable. There were 161 SPADs in total during Quarter 2, of which 125 (78 per cent) were Category A (Train operator error) and 36 (22 per cent) were Category B (due to either signal equipment malfunction or train equipment (32) and four were attributable to Service Control).

- 4.12 There were 126 Platform Train Interface (PTI) incidents reported during Quarter 2 and the trend remains stable. Ninety seven incidents were persons caught in/struck by doors, 23 were persons falling between the train and platform gap, and six were contact between person and train. There were no falls from platforms.
- 4.13 There were 270 tests for drugs and alcohol in the Quarter, 172 unannounced, two for cause, 77 routine monitoring and 19 post incident tests. There was one positive drugs result during the quarter. A Customer Service Assistant on the Victoria line tested positive during an unannounced test and resigned from the company.

5 ENVIRONMENT PERFORMANCE

Carbon and energy management

	Q2 2010/11	Q1 2010/11	Q2 2009/10
Total electricity consumption (MWh)	250,666	269,747	255,776
Total Traction Electricity (MWh)	210,885	222,973	213,868
Traction Energy Efficiency (MWh/million passenger journeys)	844	857	906
Total CO ₂ (tonnes)	135,485	145,799	138,247
Normalised CO ₂ (g/passenger km)	68.0	70.0	70.2

- 5.1 Energy consumption in Quarter 2 2010/11 was lower than the same quarter in 2009/10. Traction energy fell by 1.4 per cent between the periods and when coupled with a rise in passenger km there was a noticeable improvement in Traction Energy Efficiency.
- 5.2 There was also a fall in energy usage of some 7.6 per cent compared with the previous quarter.
- 5.3 A number of energy-related actions were delivered in Quarter 2 including:
- (a) A design review meeting for the Low Carbon Stations Initiative was held in July and full conceptual designs for low carbon technology implementation at the showcase stations, Golders Green and Leicester Square have been completed.
 - (b) LU was awarded 'Highly Commended' at the Environmental Excellence category at the National Rail Awards for the achievement of the Carbon Trust Standard.
 - (c) Energy Efficiency Plans have been created and distributed to 134 stations, covering half of the network. This supports LU's 10:10 commitment.

- (d) Suppliers have been identified and tender returns received for automatic metering (AMR) installation at 150 LU stations. In addition to providing highly accurate metering information, this project will also support LU's forthcoming Carbon Reduction Commitment Energy Efficiency Scheme obligations.
- (e) The LU Executive Committee has supported the Climate Change Strategy Team's Renewable Energy Sourcing project which is seeking to establish Power Purchase Agreements to source renewable energy from a variety of organisations/operations across London.

Recycling and waste management

	Q2 2010/11	Q1 2010/11	Q2 2009/10
Commercial and Industrial Waste (tonnes)	2,509	3,068	3,270
Commercial and Industrial Waste Recycled (tonnes)	1,841	1,955	1,555
Commercial and Industrial Waste Recycled (%)	73	64	48
Construction and Demolition Waste (tonnes)	43,525	53,079	27,638
Construction and Demolition Waste Recycled (tonnes)	38,661	48,493	15,863
Construction and Demolition Waste Recycled (%)	89	91	57

- 5.4 The amount of Commercial and Industrial (station and depot) waste collected in Quarter 2, 2,509 tonnes, was lower than that collected in Quarter 1 2010/11, 3,068 tonnes. The recycling rate for Commercial and Industrial waste was 73 per cent. This exceeded the 2010/11 recycling target for Commercial and Industrial waste (60 per cent). Recycling performance during Quarter 1 and Quarter 2 has improved significantly compared to 2009/10.
- 5.5 The improved recycling rate is primarily as a result of a larger proportion of station and depot waste being taken directly to a Material Recycling Facility where a large proportion (over 90 per cent) can be recycled. These changes were implemented as a result of a new cleaning and waste management contract for BCV/SSR beginning from Period 2 of 2010/11. JNP has also adopted a similar approach. The Material Recycling Facilities being used are in London, which directly contributes to the Mayor's goal of managing London's waste locally.
- 5.6 The amount of Construction and Demolition waste generated in Quarter 2, 43,525 tonnes, was lower than the previous quarter, 53,079 tonnes. The proportion of Construction and Demolition waste recycled in Quarter 2 was 89 per cent. This exceeded the 2010/11 75 per cent recycling target for Construction and Demolition waste.
- 5.7 The Tottenham Court Road Station Upgrade Project continues to report

excellent waste reuse and recycling rates with 99 per cent of materials recycled in Quarter 2. The Principal Contractor ensured 100 per cent of excavated materials were diverted from landfill to a quarry restoration at Sipson.

6 MAJOR INCIDENTS

6.1 There were no major incidents in the quarter.

6.2 There were two significant near misses reported during the quarter which are noted here:

- (a) The first near miss occurred on the Northern line. During the recovery of a stalled Rail Grinder Unit (RGU), the coupling between the assisting passenger train and the RGU failed. The RGU rolled without brakes from Highgate to Warren Street station. There were no injuries. The Railway Accident Investigation Branch (RAIB) and Office of Rail Regulation (ORR) are also investigating.

- (b) The second near miss occurred on the District line at Plaistow when, due to a signalling irregularity, a westbound train exiting Plaistow bay road was routed onto the eastbound road travelling westbound. There were no injuries or damage to LU assets. The ORR is conducting an investigation while the RAIB will conduct an 'industry review' of the completed LU formal investigation report.

**SURFACE TRANSPORT
QUARTERLY HEALTH, SAFETY AND ENVIRONMENT REPORT**

1 SUMMARY

What went well

- 1.1 The delivery of a 'Health and Safety for Executives' training course for Directors and Senior Managers by a specialist training company received positive feedback. The course covered strategic areas including financial considerations and developing a positive safety culture. A further course is scheduled for December.
- 1.2 The health and safety element of the London Streets HSE management system was audited by the Royal Society for the Prevention of Accidents (RoSPA). Since the last audit in 2008, the rating had improved from 69 in to 82 out of 100 and a Level 3 Award was achieved with Level 5 being the highest.
- 1.3 Eighty per cent of 51 LGV drivers surveyed as part of the trial of convex "trixi" mirrors at junctions said they will change the way they use junctions fitted with the mirror. The survey also revealed that 78 per cent of 91 drivers of LGVs, cars/vans and cyclists believed that the mirrors would improve cyclists' safety. Further customer behaviour research and counts will be conducted in October.
- 1.4 Seven suppliers agreed to offer cycle safety services and products (such as a Certificate of Professional Competence accredited driver safety training and side scanning equipment) at a discounted rate to members of the Freight Operator Recognition Scheme (FORS).
- 1.5 Last year's Drug Driving campaign, a joint initiative with the DfT, won an award at the 2010 Design and Art Direction Awards.
- 1.6 As part of the River Passenger Services Concordat between Transport for London, boat operators and other key stakeholders, the environmental workstream delivered a report on options for reducing emissions from river boat services. The next steps are to deliver a summary of the report to other members of the Concordat and to commence work on an Action Plan for reducing emissions from river boat services.
- 1.7 Surface Transport took delivery of 12 electric and hybrid vehicles as part of the DfT's low carbon vehicle procurement programme. Nine vehicles are already in service with the remainder being fitted out to become part of the Surface Transport support fleet.

Areas for improvement

- 1.8 The management of bus movements within bus garages was identified as needing additional consideration by the Bus Operators' Forum – Safety Sub Group. This followed a Health and Safety Executive visit to a bus operating company where recommendations were made on vehicle movements. All bus operators are being invited to a workshop in Quarter 3 aimed at identifying, sharing and documenting best practice in this area.

Significant plans for next quarter

- 1.9 It is not clear if the Government will establish new national targets for road casualty reduction beyond the current ones, which expire this year. In the absence of fixed national targets, it is understood that the Government will still expect local authorities to seek continued improvements in road safety.
- 1.10 Given the developments above, a draft Road Safety Plan for London that will set out a road safety strategy and delivery plan for the next 10 years is being prepared. As part of the development of this plan, TfL will consider the appropriate targets for future years – clearly, this is closely linked to the funding potentially available. Consultation with key stakeholders is planned for the beginning of 2011.

2 PROGRESS AGAINST HSE PLAN

Priority 1: Road casualty reduction

- 2.1 The 2010/11 road safety engineering scheme programme aimed at further reducing Killed and Seriously Injured (KSIs) on the Transport for London Road Network (TLRN) was commenced. This year's programme, with £7.5m allocated, consists of 105 schemes at locations with high collision levels. The schemes are expected to reduce collisions at these locations by some 25 per cent.
- 2.2 Figures for the twelve months to June 2010 show KSIs fell to 3,014 and are now 54.9 per cent below the 1994-98 average (the baseline) compared with the target of 50 per cent by the end of 2010. The KSIs are 8.7 per cent less than those reported for the corresponding period of 2009. In the same period in 2010, 139 people were killed on London's roads, 8.7 per cent less than in the equivalent period in 2009. However, 'all casualties' rose slightly to 28,096, 1.0 per cent higher than the previous twelve month period.
- 2.3 Thirteen cyclists died on London's roads in the twelve months to the end of June 2010, a reduction of four deaths when compared with the previous twelve months. In total, there were 3,745 cyclists injured in the twelve months ending June 2010, 9.1 per cent more than the previous twelve months. This increase is thought to be accounted for by the continued growth in cycle usage in the capital.

- 2.4 Data collection for the motorcycles in bus lanes trial to evaluate the effect of the new mitigating actions in place has started. Road safety marketing activity has now launched with new a radio advert on five radio stations. Enforcement activity at a trial site has resulted in 70 Fixed Penalty Notices being issued.
- 2.5 The next phase of the Intelligent Speed Adaption (ISA) project is being planned to go live in January 2011. A trial is being proposed that will focus on the effect ISA will have on reducing collisions involving young drivers and also a large fleet operation will have the ISA equipment installed to ascertain the effect on work related road safety, emissions and collision reduction.
- 2.6 The first of three bursts of activities, designed to highlight the danger of cyclists undertaking lorries at junctions, was launched in July. In addition, specially designed leaflets that hang on bikes were distributed to thousands of bikes parked at accident black-spots in central London. The leaflets feature new technology, called 'augmented reality', which allows cyclists to view a 3D representation of a lorry's nearside blind spot.

Priority 2: Safety of highways and the TLRN (including tunnels)

- 2.7 Eleven of the 13 actions identified in the internal audit of the risk identification and mitigation processes for the 13 road tunnels managed/operated by TfL were closed. A programme of work to close the remaining actions continues.
- 2.8 Two audits of the competency of contractor staff undertaking maintenance activities within the tunnels and the arrangements for recording maintenance on tunnel assets have been completed. Reports have been issued for comment.
- 2.9 Consultants are being engaged to undertake a programme of mechanical and electrical inspections in tunnels.
- 2.10 A FORS safety challenge seminar was held in September 2010. Fifty one freight operators attended the event, which was hosted by The Automobile Association (AA). The Head of Safety for the AA and a Senior Traffic Commissioner praised FORS and recommended the scheme to all freight operators as a means of helping to address the safety challenges faced by the industry.

Priority 3: Health and safety of staff and contractors

- 2.11 Work to increase managers' awareness of HR policies and also coaching for line managers on absence management practices have been effective in reducing sickness absence (see 4.1 below). An intervention where alternative duties are offered to staff on long term absence is being trialled.
- 2.12 Quarter 2 reviews of modal/directorate Health and Safety objectives for 2010/11 have commenced. For the reviews completed, good progress has been made with meeting agreed objectives.

Priority 4: Safety and security of the public transport network and its users

- 2.13 A programme of 34 Stage 1 Road Safety Audits (outline design) has been completed for all the proposed changes to the Olympic Route Network within London. A programme of Stage 2 Road Safety Audits (detailed design) is being planned for early 2011.
- 2.14 The 2010/11 bus operators' safety assurance audit programme commenced in September 2010.
- 2.15 Audits of Dial-a-Ride depots, engineering facilities and the management control centre at Mandela Way were completed. Action plans to close out recommendations are being developed and progress will be monitored through the Dial-a-Ride safety governance meetings.
- 2.16 Preparations are underway to audit Serco, the contractor operating the Barclays Cycle Hire Scheme, in Quarter 3.
- 2.17 The draft Mayoral strategy to improve transport safety and security in London, considered by the Committee on 20 July 2010, was discussed by the TfL Board at its meeting on 4 November 2010. A six monthly update on TfL's community safety activities and progress against key indicators will be provided to the Committee in March 2011. At the end of Quarter 2, bus related crime was down 1.6 per cent (193 fewer crimes) compared to the previous year and the crime rate for 2010/11 currently stands at 10.4 crimes per million passenger journeys (cmpj) compared to 11 cmpj in 2009/10.
- 2.18 Between January 2009 and October 2010, 1,519 cases were notified to the workplace violence unit (WVU). All of these were reported to and 'owned' by local borough police but the WVU provides full support on investigations. The WVU has dealt with 544 cases, with 173 cases ongoing. To date, 238 cases have received judicial disposals (such as charged, summonsed, cautioned etc).

3 STATUS OF HSE MANAGEMENT SYSTEM

- 3.1 Work to ensure a coordinated audit programme is in place for the Surface Transport HSE management systems continues. Consideration is being given to resource availability, process and integration with other assurance regimes.

4 HEALTH AND SAFETY PERFORMANCE

Health

- 4.1 There were 6,436 working days lost due to sickness absence in Quarter 2, representing an average of 1.8 per employee. For comparison, the previous

quarter's average was 2.1 days absences per employee and the corresponding quarter of last year was 2.5. The top three categories of sickness absence were mental health, musculoskeletal and gastrointestinal.

Days lost	Q2 2010/11	Q1 2010/11	Q2 2009/10
Sickness absence	6,436	7,254	10,019
Average / employee	1.8	2.1	2.5

Safety

- 4.2 The number of accidental customer major injuries in Quarter 2 was 200 (0.38 per million customer journeys). For comparison, there were 204 accidental customer major injuries in the previous quarter (0.38 per million customer journeys) and 212 (0.41 per million customer journeys) in the same quarter last year.

	Q2 2010/11	Q1 2010/11	Q2 2009/10
Customer major injuries	200	204	212
Rate/10 ⁶ customer journeys	0.38	0.38	0.41

- 4.3 There was one accidental employee major injury in Quarter 2. For comparison, there were two employee major injuries in the previous quarter and two in the same quarter last year.

	Q2 2010/11	Q1 2010/11	Q2 2009/10
Employee major injuries	1	2	2
Rate/1000 employees	0.31	0.51	0.50

- 4.4 There were 24 physical assaults on employees in Quarter 2. For comparison, there were 22 physical assaults on employees in the previous quarter and 27 in the same quarter last year. There were seven reported verbal assaults on employees in Quarter 2. For comparison, there were two verbal assaults on employees in the previous quarter and five in the same quarter last year.

	Q2 2010/11	Q1 2010/11	Q2 2009/10
Employee physical assaults	24	22	27
Employee verbal assaults	7	2	5
Rate/1000 employees	9.6	6.25	8.0

- 4.5 There were 131 physical assaults on contractors (mainly bus drivers) in Quarter 2. For comparison, there were 104 physical assaults on contractors in the previous quarter and 98 in the corresponding quarter of last year.

	Q2 2010/11	Q1 2010/11	Q2 2009/10
Contractor physical assaults	131	104	98

5 ENVIRONMENTAL PERFORMANCE

Air quality

- 5.1 Following a statutory public consultation, the Mayor has confirmed that from 3 January 2012, larger vans, minibuses and other specialist vehicles must meet a Euro III standard for particulate matter (PM) to drive free of charge in the Low Emission Zone (LEZ). There will also be changes for operators of HGVs, buses and coaches that have been subject to the LEZ emissions standards since 2008. From 3 January 2012, they will be required to meet the Euro IV standard for PM.

Waste and recycled materials

- 5.2 The Highway Maintenance and Works Contractors (HMWCs) recycled and reused 98.3 per cent and 97.2 per cent of excavated and non excavated materials respectively in Quarter 2, against targets of 97 and 95 per cent for 2010/11.
- 5.3 The HMWCs procured 16.9 per cent of recycled and green material in Quarter 2. Revised targets for the procurement of recycled and green materials are being developed.

HMWC waste and recycled materials	Q2 2010/11	Q1 2010/11	Q2 2009/10
Excavated waste recycled and reused - percent (tonnes of total volume)	98.3 (13,379 of 13,610)	97.3 (9,916 of 10,192)	99.2 (7,663 of 7,602)
Non-excavated waste recycled and reused – percent (tonnes of total volume)	97.2 (1,035 of 1,065)	96.9 (513 of 530)	96.3 (833 of 866)
Recycled and green material procured – percent (tonnes of total volume)	16.9 (4,246 of 25,123)	12.9 (2,090 of 16,206)	28.1 (1,006 of 3,581)

- 5.4 In Quarter 2, the Traffic Control Equipment Maintenance and related Services (TCMS) contractors recycled 59.8 per cent of generated waste.

TCMS waste and recycled materials	Q2 2010/11	Q1 2010/11	Q2 2009/2010
Waste recycled – percent (tonnes of total volume)	59.8 (11,319 of 18,905)	52 (11,100 of 22,100)	(monitoring not started)

- 5.5 In Quarter 2, 3.23 tonnes of office waste were recycled at Bus Stations and 4.79 tonnes of office waste were recycled at Dial-a-Ride depots.

Recycled waste (tonnes)	Q2 2010/11	Q1 2010/11	Q2 2009/10
London Buses office waste	3.23	3.41	0.14
DaR office waste	4.79	5.05	3.5

Natural Environment

5.6 Tree planting and removal figures are presented annually.

6 MAJOR INCIDENTS

- 6.1 On 8 September 2010, a contracted bus operator's engineer working on a defective bus on the highway was fatally injured by the vehicle he was working on. The operator has commenced a full investigation after reporting the incident to the Health and Safety Executive. London Buses will review the operator's investigation and lessons learned.
- 6.2 There were three pedestrian fatalities involving buses on the London bus network in Quarter 2. They involved collisions with buses operating on Route 47 on 15 July at Brookmill Road, SE8; Route 141 on 17 August at Copthall Court, EC2 and a Route N5 on 30 September at Haverstock Hill, NW3. The incidents are under investigation.
- 6.3 An investigation into an incident where a passenger fell alighting a Route 127 bus in February 2010 was concluded. During the incident, the passenger sustained a leg injury and was later taken to the hospital and suffered a cardiac arrest a week later. The coroner recorded a verdict of "Accidental Death" and made no recommendations for TfL or the bus operator.
- 6.4 An investigation into an incident where the driver of a private car died from a collision with a Route 367 bus in February 2010 concluded with the coroner recording a verdict of "Accidental Death" and making no recommendations for TfL or the bus operator.

LONDON RAIL QUARTERLY HEALTH, SAFETY AND ENVIRONMENT REPORT

1 SUMMARY

What went well

- 1.1 Significant construction works have taken place for the development of the new DLR Beckton depot offices. Ground work is now complete and work has started on the building structure. Construction is ongoing while operational activities are taking place in close proximity so stringent safety arrangements are in place. There have been no accidents since the commencement of the works.
- 1.2 On DLR, the main works on the Stratford International Extension and the Three Car Project have progressed well and in terms of safety have both performed well over the last quarter. There have been no RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations) reportable accidents and the minor accident rate is very low. The intensive programme of close monitoring activities with both DLR project safety and the Skanska Volker Rail Joint Venture contractor's safety team has been successful to date and will be continuing.
- 1.3 The DLR Safety Performance Index, which has lead and lag indicators in a balanced formula, has generated the highest overall score since its inception a year ago. The Safety Performance Index model was presented at the recent London Rail Safety Committee as a best practice concept with a view to introducing similar models in London Tramlink and London Overground at a later date.
- 1.4 On London Overground, in preparation for Phase Two works on the extension from Silwood Junction to Clapham Junction, the Environmental Code of Construction Practice has been finalised. Liaison has taken place between the London Borough of Lewisham on requirements for environmental impact assessments and noise barriers. Advanced works have taken place to erect lizard fencing and to carry out searches to ensure the construction sites are free of reptiles.
- 1.5 The second year tram track replacement project took place in Quarter 2. This involved suspending part of the tramway for 10 days and carrying out track replacement at three separate sites. The works were carefully planned to ensure the safety of pedestrians, road users and tram passengers. The project was completed safely, to time and on budget. Lessons learnt from previous projects were employed to keep noise to a minimum and there were no complaints from members of the public.
- 1.6 For the third year, London Rail took part in the Global Corporate Challenge. Eight teams successfully took part in this health improvement initiative which

promotes a healthier life style through walking. The DLR team came top of the London Rail league, second in the world transportation league and 127 out of 14,000 in the world.

Areas for improvement

- 1.7 There have been a number of graffiti and stone throwing incidents on the core section of the East London Railway. London Overground and Network Rail staff members have been working closely with the British Transport Police (BTP) to combat these problems.
- 1.8 The condition of both tram vehicles and track is under review. The review is intended to lead to a plan that not only ensures the continued safety of passengers but also improves the overall quality of tram journeys.

Significant plans for the next quarter

- 1.9 DLR will undertake a review of its Safety Performance Index. This will involve a workshop with DLR stakeholders including key operational and engineering managers. The objective of the review is to determine if the current indicators are the right measures, to identify if there are other measures which should be included and to propose targets for the index.
- 1.10 Work will commence on various environmental initiatives for the new DLR Beckton depot offices, including a brown roof and solar heating.
- 1.11 The next period will see the commencement of the testing and commissioning plan for the East London Line Phase 1a works which connect Dalston Junction to Highbury and Islington. This section of the line should be fully operational in May 2011.
- 1.12 Following a number of noise complaints about wheel rail noise around New Cross Gate depot and Hollywell Curve on the East London Railway, London Overground has worked with noise experts and partner agencies to develop a number of proposed improvements. These include modifications to existing lubricators and the introduction of additional ones. Noise monitoring will continue to assess the effectiveness of the changes.
- 1.13 In preparation for Phase 2 works, the East London Line project team will clear Japanese Knotweed from the construction areas and remove vegetation in which birds could nest and hence potentially delay the construction programme that is due to start in March 2011. It is also planning to install noise insulation in residential premises that are predicted to be adversely affected by construction noise.
- 1.14 As a result of an increase in operational safety incidents, LOROL will undertake a review of operating procedures at Willesden Train Care depot in the next quarter.

1.15 Construction work will commence on the new Tramlink office building at the Tramlink depot in Croydon.

2 PROGRESS AGAINST HSE PLAN

2.1 The London Rail HSE improvement plan commenced during Quarter 4 2009/10. The calendar year plan is monitored quarterly and all modes report that they have made good progress against the half year targets.

3 STATUS OF HSE MANAGEMENT SYSTEM(S)

3.1 DLR and London Overground have established safety management systems. The system in London Tramlink is being revised in preparation for bringing in-house the Infrastructure Maintenance Contractor at the end of 2010.

4 HEALTH AND SAFETY PERFORMANCE

Health

4.1 There were 151 working days lost due to sickness absence in Quarter 2 by employees of London Rail. This represented an average of 0.74 days per employee. For comparison, in the previous quarter, there was 108 days lost equating to 0.52 days absence per employee and in the same quarter last year there was 272 days lost, equating to 1.2 days absence per employee. The top three categories of sickness absence in Quarter 2 were mental health, gastrointestinal and coughs and colds. Overall absence rates remain low in London Rail.

Days lost	Q2 2010/11	Q1 2010/11	Q2 2009/10
Sickness absence	151	108	272
Average / employees	0.74	0.52	1.2

Safety

4.2 There were no employee major injuries this quarter in London Rail.

4.3 There were two accidental customer major injuries for London Overground in Quarter 2 (12 million journeys). For comparison, there were no accidental customer major injuries in the previous quarter or the same quarter last year.

London Overground	Q2 2010/11	Q1 2010/11	Q2 2009/10
Customer major injuries	2	0	0
Rate/million customer journeys	0.16	0	0

4.4 There were no TfL employee assaults this quarter on London Overground. The number of LOROL employees who suffered physical and verbal assaults in Quarter 2 was five and 18 respectively. For comparison, there were six and 12 in the previous quarter. Analysis has revealed that most assaults are

associated with service disruptions and revenue collection. LOROL is working with the BTP to target specific locations.

LOROL	Q2 2010/11	Q1 2010/11	Q2 2009/10
Physical assaults	5	6	2
Verbal assaults	18	12	5
Rate/1000 employees	20	16	8.1

- 4.5 There were no accidental customer major injuries on DLR in Quarter 2 (17.3 million customer journeys). For comparison, there was one accidental customer major injury in the previous quarter and six in the same quarter last year.

DLR	Q2 2010/11	Q1 2010/11	Q2 2009/10
Customer major injuries	0	1	6
Rate/million customer journeys	0	0.06	0.37

- 4.6 There were no TfL employee assaults this quarter on DLR. The number of franchisee employees who suffered physical or verbal assaults in Quarter 2 was nine and 28, respectively. The overall rate is similar to the previous quarter. All assault incidents continue to be reviewed by the Assaults Working Group. The majority of assaults are directly related to revenue protection issues. BTP is working with the franchisee to address these issues.

DLR	Q2 2010/11	Q1 2010/11	Q2 2009/10
Physical assaults	9	6	0
Verbal assaults	28	29	18
Rate/1000 employees	60	56	28

- 4.7 There were no accidental customer major injuries for London Tramlink in Quarter 2 (6.1 million customer journeys). For comparison, there were no accidental major customer injuries in the previous quarter or the same period last year.

Tramlink	Q2 2010/11	Q1 2010/11	Q2 2009/10
Customer major injuries	0	0	0
Rate/million customer journeys	0	0	0

- 4.8 In London Tramlink, there were no TfL employee assaults this quarter. There were five physical and five verbal assaults in Quarter 2 for the contractor, Tram Operations Limited (TOL). For comparison, there were three physical and 13 verbal assaults in the previous quarter and one and nine respectively in the same quarter last year. All of the physical assaults were minor and mostly involved pushing or spitting. The trends are being carefully monitored and TOL are working with the BTP to target particular hotspots and times of the day.

TOL	Q2 2010/11	Q1 2010/11	Q2 2009/10
Physical assaults	5	3	1
Verbal assaults	5	13	9
Rate/1000 employees	62	99	62

- 4.9 On London Overground Infrastructure, there were no contractor RIDDOR reportable accidents during the quarter. The cumulative contractor accident rate is 0.10 per 100,000 hours. This is slightly higher than the previous quarter and is associated with the significant drop in hours worked as projects come close to completion.
- 4.10 On DLR Major Projects there were no contractor RIDDOR accidents in Quarter 2. The contractor accident rate is 0.22 per 100,000 hours worked at the end of the quarter. This is a slight increase from 0.19 at the end of the last quarter; the number of accidents within the 13 previous periods remained the same but there was a significant drop in hours worked as projects come close to completion.

5 ENVIRONMENT PERFORMANCE

Carbon emissions and energy management

- 5.1 The previous quarter saw significant engineering works and thus a reduction in passenger km and the quantity of CO₂ emitted. London Rail is looking at how energy use can be reduced but with a significant increase in services and rolling stock later this year, this will be a challenge. Once a baseline is established, improvement targets will be set.

	Q2 2010/11	Q1 2010/11	Q2 2009/10
Total CO ₂ (Tonnes)	14,440.30	12,628.49	13,113.00
CO ₂ (g/passenger km)	60.79	55.18	59.64.

Waste Management

- 5.2 Following the new office development at the Tramlink depot a comprehensive recycling arrangement will be put in place to manage better waste from both the depot and trams. This should be operational from Quarter 4 2010/11.
- 5.3 The most significant construction phase of the East London Line Project has now past. The project has now moved onto Phase 1A and the main works contractor has continued to achieve very low levels of waste to landfill. Against a target of 80 per cent, 96 per cent of demolition waste has been recycled.
- 5.4 On London Overground, significant efforts are being made to improve the total amount of commercial waste that is recycled. Data show that the percentage recycled increased from three per cent in 2008/09 to 49 per cent in 2009/10.

LOROL has set a target of recycling 60 per cent of station waste by December 2012. There is still some way to go to achieve this objective; at the end of Quarter 2 41 per cent was recycled.

5.5 At the end of Quarter 2, DLR had increased the total amount of commercial waste recycled from 31 per cent in the previous year to 38 per cent so far this year. The target is to reduce waste to landfill by five per cent. By far the greatest quantity of recycled waste is paper and, in the quarter, 67 tonnes of paper was recycled.

6 MAJOR INCIDENTS

6.1 There were no major incidents in the quarter.

**CROSSRAIL
QUARTERLY HEALTH, SAFETY AND ENVIRONMENT REPORT**

1 SUMMARY

What went well

- 1.1 Leadership in action training has been very well received and is currently over subscribed; further sessions are now being organised.
- 1.2 The Client Charter for Constructing Better Health, which sets out Crossrail's commitment to the implementation of the national construction standards for health surveillance, was signed.
- 1.3 The Healthy by Design guidance was issued and circulated programme wide with a link to the document placed on the external website so that prospective bidders are aware of the publication.
- 1.4 Construction guidance (ground works) booklet 'Plan the work: Work the plan' has been developed and distributed to the supply chain.
- 1.5 Environmental Fact Sheets have been published to provide key facts on the principal environmental topic areas and to demonstrate the steps being taken to ensure that Crossrail is successfully managing its environmental issues.
- 1.6 The Executive approved the development of an environmental vision and charter to form the basis of environmental communications going forward. Work on developing the vision commenced through a series of focus groups, the first of which involved the Crossrail leadership.

Areas for improvement

- 1.7 The processes for capturing health, safety and environment KPIs within the RIVO Safeguard database will continue to be developed.
- 1.8 Work with partners (in particular, London Underground, utility companies, DLR and Network Rail) to review arrangements for assurance of environmental management will continue.

Significant plans for the next quarter

- 1.9 The health and safety management system will be updated to reflect the new operating model for Crossrail.
- 1.10 The six monthly LRQA audit of the health and safety management system to maintain the British Standard OHSAS 18001 accreditation will be carried out.
- 1.11 The risk model for the operational railway will be developed.

1.12 The environmental vision and charter will be finalised.

1.13 An ISO 14001 certification surveillance audit of Crossrail's Environmental Management System will be undertaken in Quarter 3 2010/11.

2 PROGRESS AGAINST HEALTH AND SAFETY PLAN

2.1 Good progress is being made on all the objectives set for 2010/11.

3 STATUS OF HEALTH AND SAFETY MANAGEMENT SYSTEM

3.1 The health and safety management system has been subject to minor improvements during the quarter with the incident notification, on call and response procedure being rewritten and the Occupational Health standard updated to include the requirements for Constructing Better Health.

4 HEALTH AND SAFETY PERFORMANCE

Health

4.1 There were 396.5 working days lost due to sickness absence in Quarter 2, which represents an average of 1.36 days per employee. The top two categories of sickness absence in the quarter were coughs and colds and gastrointestinal.

Days lost	Q2 2010/11	Q1 2010/11	Q2 2009/10
Sickness absence	396.5	436	329
Average/employee	1.36	1.49	1.24

Safety

4.2 There were no employee major injuries in Quarter 2.

	Q2 2010/11	Q1 2010/11	Q2 2009/10
Employee major injuries	0	0	0
Rate/1,000 employees	0	0	0

4.3 There was one contractor major injury in Quarter 2. For comparison, there were two in the previous quarter and none in the same quarter last year.

	Q2 2010/11	Q1 2010/11	Q2 2009/10
Contractor major injuries*	1	2	0
Rate/1,000 contractor employees	0.62	1.16	0

*Note: To avoid duplication, London Underground major injuries associated with the Crossrail Programme are not included.

- 4.4 There were no physical and verbal assaults to employees in Quarter 2. For comparison, there were none in the previous quarter or the same quarter last year.

5 ENVIRONMENT PERFORMANCE

Carbon and energy management

- 5.1 The electricity and fuel use on site increased in Quarter 2 as a result of increased construction activity.

Construction Activities	Q2 2010/11	Q1 2010/11
Site Electricity Consumption (kWh)	21,411	15,937
Site Fuel Consumption (litres)	103,884	28,066
Total CO ₂ (tonnes)	285	84

- 5.2 Electricity consumption in the office at Canada Square was 442,440 kWh. The increase compared to the previous quarter is attributed to the use of air conditioning over the summer months. Energy consumption data for the two floors occupied at Pier Walk is included in the TfL Head Office report because sub-metering for this building is not available. There are plans for sub-metering to be introduced within the building to enable energy consumption records to be reported separately.

Office Activities	Q2 2010/11	Q1 2010/11
Office Electricity Consumption (kWh)	442,440	423,033
Total CO ₂ (tonnes)	238	227

Recycling and waste management

- 5.3 Over the second quarter, 7,767 tonnes of construction and demolition waste was recorded, an increase since last quarter, which reflects the increased number of contracts underway. Of this waste, 92 per cent was reused or recycled, which is above the 90 per cent target. As a project, the types of waste generated will vary according to the phase of the works. The success of this target will be determined based on the amount of waste reused or recycled over the whole of the project life (i.e. the cumulative waste recovery). The current cumulative recovery rate for construction and demolition waste for Crossrail is 93 per cent.

Construction Activities	Q2 2010/11	Q1 2010/11
Construction and Demolition Waste (tonnes)	7,767	3,161
Construction and Demolition Waste Recovered (tonnes)	7,122	2,929
Construction and Demolition Waste Recovered this quarter (%)	92	93
Cumulative Construction and Demolition Waste Recovered (%)	93	93
Excavated Material (tonnes)	868	122
Excavated Material Recovered (tonnes)	817	84
Percentage Excavated Material Recovered (%)	94	69
Cumulative Excavated Material Recovered (%)	90	69

5.4 Crossrail is also collecting data on the excavated material arising from the project. Most of the material excavated in the second quarter arose from work on the tunnel portal at the Royal Oak Portal site. Of the material arising during the quarter, 94 per cent was recovered. The cumulative recovery rate for excavated material is 90 per cent, which is below Crossrail's target of 95 per cent. The current quantities of waste from excavation activities are relatively low and it is expected that once excavation activities increase across the project (e.g. from the main tunnelling activities) the percentage diverted from landfill will increase.

Site Inspections

5.5 During the quarter, 25 environmental site inspections were planned and carried out. These inspections identified four non-conformances (NCRs), 49 observations and seven areas of good practice. There are no overdue NCRs.

6 MAJOR INCIDENTS

6.1 There were no major incidents in the quarter.

**CORPORATE DIRECTORATES
QUARTERLY HEALTH, SAFETY AND ENVIRONMENT REPORT**

1 SUMMARY

What went well

- 1.1 The first stage of a joint Group HSE and Occupational Health review of Corporate Directorates sickness absence was completed. More detailed analysis is underway to identify how long term sickness absences related to musculo-skeletal disorders is being managed to confirm the suitability of controls and the adequacy of HSE support to line managers.
- 1.2 Senior managers and project managers within Fares and Ticketing completed Construction Design and Management training as part of the HSE due diligence work prior to the start of the Future Ticketing Agreement (FTA).
- 1.3 A cross-modal review of procurement pre-qualification questionnaires (PQQs) was completed with Group Procurement to strengthen existing PQQ templates and minimise HSE-related risks.

Areas for improvement

- 1.4 An improved approach to training is being developed to align HSE training for managers in the Corporate Directorates with the requirements of the TfL Group HSE Competency Framework. This will be introduced before the end of 2010/11.

Significant plans for the next quarter

- 1.5 Group HSE and Occupational Health analysis of Corporate Directorates sickness absence patterns will continue to identify ways in which management of sickness absence can be improved.
- 1.6 A joint TfL-Cubic Transportation Systems ergonomic review of ticket office environments will be undertaken.

2 PROGRESS AGAINST HSE PLAN

Corporate Directorate HSE Management System

- 2.1 Continuing joint working with Group Procurement is now ensuring sharing of procurement strategies and thus enabling timely HSE support.
- 2.2 HSE Priorities and Plans for the Corporate Directorates for 2011/12 were developed.

Specific areas of risk

- 2.3 A benchmarking exercise comparing online Display Screen Equipment risk assessment systems concluded that the Corporate Directorates and Surface Transport should continue to use DSeasy.
- 2.4 Work within HR and Group Facilities on home and neighbourhood working continues to be monitored with regard to health and safety issues.
- 2.5 Guidance to managers approving mileage claims for private car use on company business within Corporate Directorates was reinforced following a RIDDOR reportable occupational driving accident.
- 2.6 Input from Network Rail relating to fire risk assessments for the Travel Information Centre (TIC) at Victoria Station is being applied, where relevant, to other TIC sites.

3 STATUS OF HSE MANAGEMENT SYSTEM(S)

- 3.1 A management review of the Group HSE management system (HSEMS) has been completed. In the light of the review and organisational changes in the Corporate Directorates, the relevant HSEMS requires updating and this will be completed during 2010/11.

4 HEALTH AND SAFETY PERFORMANCE

Health

- 4.1 There were 3,930 working days lost to sickness absence in Quarter 2, representing an average of 1.6 days per employee. This represents a decrease from the previous quarter (1.8 days) and is the same as the same quarter last year (1.6 days).

Days lost	Q2 2010/11	Q1 2010/11	Q2 2009/10
Sickness absence	3,930	3,982	3,605
Average/employee	1.6	1.8	1.6

- 4.2 The top three sickness absence categories were mental health, musculo-skeletal disorders and coughs and colds.

Safety

- 4.3 A RIDDOR reportable occupational driving accident caused over three days of sickness absence but no major injuries. An investigation was concluded and a briefing issued to managers to reconfirm the requirements of the Group driving/riding at work standard.
- 4.4 There were no accidental customer major injuries, employee major accidental injuries or any physical assaults on employees during Quarter 2, during the previous quarter or during the same quarter last year. The Corporate

Directorates consist mainly of non-operational staff and periodic workplace assessments and the implementation of adequate controls helps to maintain this low risk environment.

5 ENVIRONMENT PERFORMANCE

Carbon emissions

- 5.1 The target for CO₂ emissions in head office buildings was met this quarter. Emissions were 17 per cent below the target for Quarter 2 and 11 per cent down on 2009/10 totals. The buildings energy efficiency retrofit initiative at 22 head office buildings (RE:FIT) and 10:10 campaign works have contributed to the efficiency improvements.

CO ₂ kg/m ²	Q2 2010/11	Q1 2010/11	Q2 2009/10
Target	27.1	30.5	27.4
Emissions	22.4	30.2	25.2

Water consumption

- 5.2 The water consumption target for Quarter 2 for the head office buildings was not met. Consumption at 1.56m³/person, is five per cent above the target. The reason for the increased consumption is being investigated.

Water use (m ³ /person)	Q2 2010/11	Q2 2010/11	Q2 2009/10
Target	1.48	1.65	1.56
Performance	1.56	1.51	1.26

6 MAJOR INCIDENTS

- 6.1 There were no major incidents in the quarter.

QUARTER 2 2010/11 HEALTH AND SAFETY – DATA SUMMARY*

LU – London Underground; ST – Surface Transport; LR – London Rail;
 CD – Corporate Directorates; CRL – Crossrail; DLR – Docklands Light Railway;
 LOROL – London Overground.
 n/a - not available

Health

	Sickness absence days lost			Average days lost / employee		
	Q2 2010/11	Q1 2010/11	Q2 2009/10	Q2 2010/11	Q1 2010/11	Q2 2009/10
LU	37,547	37,161	32,910	2.1	2.1	2.5
ST	6,436	7,254	10,019	1.8	2.1	2.5
LR	151	108	272	0.7	0.5	1.2
CRL	397	436	329	1.4	1.5	1.3
CD	3,930	3,982	3,605	1.6	1.6	1.6

Employee major injuries

	Employee major injuries			Rate / 1000 employees		
	Q2 2010/11	Q1 2010/11	Q2 2009/10	Q2 2010/11	Q1 2010/11	Q2 2009/10
LU	2	2	3	0.11	0.11	0.19
ST	1	2	2	0.31	0.51	0.50
LR	0	0	0	0	0	0
CRL	0	0	0	0	0	0
CD	0	0	0	0	0	0

Employee assaults (Total)

	Employee assaults			Rate / 1000 employees		
	Q2 2010/11	Q1 2010/11	Q2 2009/10	Q2 2010/11	Q1 2010/11	Q2 2009/10
LU*	334	303	314	29.5	26.3	28.6
ST	32	24	34	9.6	6.2	8.0
LR	0	0	0	0	0	0
CRL	0	0	0	0	0	0
CD	0	0	0	0	0	0

* Only includes Chief Operating Officer staff.

Customer Major Injuries

Customer major injuries				Rate / 10 ⁶ customer journeys		
	Q2 2010/11	Q1 2010/11	Q2 2009/10	Q2 2010/11	Q1 2010/11	Q2 2009/10
LU	22	35	17	0.09	0.13	0.07
ST	200	204	212	0.38	0.38	0.41
DLR	0	1	6	0	0.06	0.37
LOROL	2	0	0	0.16	0	0
TRAM	0	0	0	0	0	0

Contractor Staff Assaults (Total)

Contractor staff assaults				Rate / 1000 staff		
	Q2 2010/11	Q1 2010/11	Q2 2009/10	Q2 2010/11	Q1 2010/11	Q2 2009/10
BUSES	131	104	98	n/a	n/a	n/a
LOROL	23	18	7	20	16	8
DLR	37	35	18	60	56	28
TOL	10	16	10	62	99	62