Transport Services committee meeting 05.04.11

LondonTravelWatch

Secretariat memorandum

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Briefing note on London TravelWatch's engagement with rail safety issues

1 Purpose of report

1.1 To outline the arrangements for safety regulation in the rail industry, and the nature and extent of London TravelWatch's involvement with safety issues, to accompany a presentation to be given to the Transport Services Committee by the safety policy adviser.

1.2 For the purposes of this report, the term safety refers primarily to physical safety (i.e. from accidents), and unless otherwise indicated, it does not include matters relating to personal security (i.e. from assaults and other forms of crime).

2 Safety regulation

2.1 It is axiomatic that preserving the safety of its passengers, staff, and the public at large – as far as is reasonably practicable - is the first duty of any transport provider. This duty derives in part from common law, in part from general legislation applicable to all employers or occupiers of premises, and in part from a body of railway-specific statutes and regulations (some of which date back to the Victorian era while others have emerged very recently in the guise of EU directives).

2.2 The duty is placed on the railway operators themselves, to the extent that each has control of particular facilities or equipment, and it cannot be delegated. The various component parts of the industry are required to co-operate with each other to manage shared risks where these arise at the interface between different organisations. There is a high level of collaboration between them in recognition of the fact that safety should not be compromised by sectional interests or commercial rivalries.

2.3 There are a number of specialised industry-wide agencies which discharge specific safety-related functions. These are:

2.4 Office of Rail Regulation (ORR)

2.4.1 Since 2006, the ORR has been the safety regulator for the entire rail industry, which includes the main line network, metros, light rail systems, tramways and "heritage" lines. This is complementary to its role as economic regulator for the main line railways. Its functions include (a) monitoring safety performance and providing advice to operators, (b) scrutinising and approving applications for

safety certificates, without which no operating licence is valid, (c) authorising the introduction of new works, equipment and operating procedures, and (d) enforcing the provisions of the Health & Safety at Work etc Act 1974 and related regulations (including, when necessary, issuing improvement or prohibition notices, and bringing prosecutions). Prior to 2006, this function was performed by HM Railway Inspectorate (HMRI), which functioned under the aegis of the Health & Safety Executive (HSE).

[More information about the safety functions of ORR can be found at **http://www.rail-reg.gov.uk/server/show/nav.1210**.]

2.5 RSSB

2.5.1 Now known simply by its initials, the Rail Safety & Standards Board was created in its present form to meet a recommendation made in the report of Part 2 of the Ladbroke Grove Rail Inquiry ("the Cullen Report") in 2001. It is jointly owned and funded by all of the organisations which hold rail operating licences on the main line network, i.e. Network Rail, passenger and freight train companies, and those infrastructure maintenance/renewals companies which operate rail-borne engineering plant. Its functions include (a) producing the industry's five-year strategic safety plan, (b) drafting and publishing industry-wide safety standards, including the Rule Book, (c) recording safety-related incidents and issuing safety performance reports, (d) commissioning safety-related research, (e) sponsoring CIRAS, the industry's confidential Incident reporting and analysis system, and (f) managing groups which oversee joint industry action to address particular areas of risk, such as level crossings or suicides.

[More information about the work of RSSB can be found at **www.rssb.co.uk**.]

2.6 Rail Accident Investigation Branch (RAIB)

2.6.1 The creation of RAIB was also recommended in the Cullen Report, and has in any event been made necessary in order to achieve compliance with an EU rail safety directive. It is a specialist – and operationally autonomous - unit within the Department for Transport (DfT), closely modelled on equivalent bodies serving the civil aviation and shipping industries. It became fully operational in October 2005. Its duty is to conduct investigations into significant railway accidents and safety-related incidents, and to make recommendations for mitigating the likelihood of similar events occurring in future. It is solely concerned with establishing fact, and not with apportioning blame (responsibility for bringing any prosecutions arising from such events remains with the Crown Prosecution Service and/or ORR).

[More information about the work of RAIB can be found at **http://www.raib.gov.uk/home/index.cfm**.]

2.7 British Transport Police (BTP)

2.7.1 The BTP is the specialist police force serving the rail industry. The National Rail operators and Transport for London are legally obliged to maintain and fund it, and a number of light rail systems also contract into its services voluntarily. It is governed by a statutory police authority comprising both industry representatives and members of the travelling public, some of whom have been members of London TravelWatch (though they serve as individuals, not appointees). Its

officers have exactly the same powers and duties as the members of any civil police force. But they are trained additionally to meet the particular policing challenges of the railway environment, e.g. working on and about the tracks or on trains moving over long distances. Their role is the same as that of the police generally, i.e. protection of life and property, prevention and detection of crime, preservation of public order, etc, but they have particular skills in relation to problems arising in the rail industry such as handling football supporters, preventing terrorist attacks and dealing with the immediate aftermath of accidents.

[More information about the work of BTP can be found at **www.btp.police.uk**.]

2.8 Parliamentary Advisory Council on Transport Safety (PACTS)

2.8.1 Unlike the bodies listed above, PACTS is a purely voluntary organisation (and is a registered charity). But it has a highly influential and authoritative role in enhancing public and official awareness of transport safety issues. It is a registered all-party parliamentary group, with members drawn from both Houses and from a wide cross-section of individuals and organisations involved with transport policy making and administration, including manufacturers, operators, insurers, academia, local government and consumer groups. Its remit covers road, rail and air safety. It commissions research, publishes briefing papers, monitors parliamentary activity, holds conferences and seminars, and responds to consultation exercises. London TravelWatch has played an active part in PACTS for more than 20 years, particularly in its specialist rail safety working party.

[More information about the work of PACTS can be found at www.pacts.org.uk.]

3 Role of London TravelWatch

3.1 With one exception, London TravelWatch has no formal duties relating explicitly to safety. But to the extent that safety is an area of concern to passengers (or would-be passengers) generally, it is properly and necessarily an issue of concern to their representative body. There is certainly an expectation on the part of the mass media that London TravelWatch will have an informed view about the industry's safety performance when it is invited to comment on this. And a proportion of its complaints caseload raises safety concerns, with which it has to be suitably equipped to deal.

3.2 The exception mentioned in the previous paragraph is the Railways & Other Guided Transport Systems ("ROGS") Regulations 2006, which give effect in domestic law to an EU directive which requires all main line railway operators to hold safety certificates issued by the relevant national safety authority (which in Britain is the ORR). Such certificates are only issued to operators which can demonstrate that they possess a suitable safety management system. Applicants for such certificates must consult, among others, any representative bodies of rail users, which are defined in the regulations as London TravelWatch and/or Passenger Focus, as appropriate.

3.3 The assumption mentioned in paragraph 3.1 has found specific expression from time to time in official or quasi-official documents. For example, the report of the inquiry into the Kings Cross Underground station fire ("the Fennell report")

recommended in 1988 that passengers should be represented on the Health & Safety Commission (HSC) (now the ORR)'s advisory committee for the railways. The similar report arising from the Southall collision ("the Uff report") recommended in 1999 that consideration should be given to enlarging the role of their representative body and providing appropriate funding for its full participation in such inquiries. Such recommendations - and the requirements of the ROGS regulations - clearly reflect not only a belief in other quarters that London TravelWatch and Passenger Focus have the capability to act as credible exponents of passengers' interests in relation to safety but also that they are the appropriate source to which official bodies should turn for this purpose.

3.4 A number of attitudinal research studies have shown that safety is very high amongst rail passengers' priorities, when they are asked to rank the relative importance of various service attributes (confirming the assumption asserted in paragraph 3.1). But it is usually ranked very much lower when they are asked to identify the areas in which they are keenest to see performance improved. This indicates that, whatever its other shortcomings, the industry is – rightly – recognised as having a generally good safety record, at least in comparison with private transport modes. Non-users tend to have a lower perception of rail safety than frequent travellers, particularly in relation to personal security, perhaps because their views are derived more from media reports and less from personal experience.

3.5 Data on current rail safety trends will be included in the safety policy adviser's presentation to the Transport Services committee on 5.4.11, which this paper has been written to accompany.

3.6 It follows that although safety issues normally consume only a relatively small share of London TravelWatch's time and resources, it has to be prepared to deal with them effectively when they arise. This means that it has to have access to specialist advice, either from within the organisation or elsewhere, and to provide suitable external representation when invited (and able) to do so. In determining the level and form of its involvement with safety matters, it is necessary to have regard not only to (a) the resource implications in terms of member and officer time, and (b) pressures on its funding, but also to (c) the utility of engagement with specific safety policy topics from a passenger perspective and (d) the possible reputational damage which the organisation might suffer from any precipitate or indiscriminate withdrawal from this area of work.

4 Activities of London TravelWatch

4.1 In concrete terms, London TravelWatch's involvement with rail safety policy-making and research includes the following activities:

4.2 Consultation

4.2.1 London TravelWatch is invited by the Department for Transport, ORR, RSSB BTP and (from time to time) other bodies such as the Law Commission and the Sentencing Guidelines Council to comment on consultation exercises regarding (e.g.) draft legislation, regulations and safety standards (and proposed derogations from these), safety plans and strategies, white/green papers, performance targets, licence applications, etc. In the 5-year period ending on

28.2.11, a total of 399 such requests was received, i.e. a rate of 1.7 per working week. Of these, substantive replies were sent to 188 (i.e. 47%).

4.3 Casework

4.3.1 A proportion of the appeals cases brought to London TravelWatch by members of the travelling public raise concerns about safety standards and performance. As the organisation's casework team has no specialist knowledge in this area, these (and the operators' responses) are routinely referred to the safety policy adviser for scrutiny and for further investigation when required.

4.4 ORR liaison

4.4.1 There is a standing policy within ORR by which its regional field teams of inspectors have been required to meet London TravelWatch and/or Passenger Focus officers from time to time to review issues of common local concern.

4.5 Conferences, seminars, scrutinies, briefings

4.5.1 The safety policy adviser is invited from time to time to give presentations at (and/or submit evidence to) conferences, seminars, and Parliamentary and London Assembly inquiries/scrutinies. He also prepares safety topic briefings for members and the Chief Executive as required.

4.6 Accident inquiries

4.6.1 London TravelWatch (or its predecessors) has been a "recognised party" which has played a full part in the public inquiries or inquests which have been held into a number of multi-fatality rail accidents – the Kings Cross Underground station fire, Clapham Junction, Cannon Street, Southall, Ladbroke Grove and Potters Bar. At the invitation of the relevant industry bodies, it has also provided observers at the internal inquiries into the Hatfield and Chancery Lane accidents.

5 Strategic advisory bodies

5.1 London TravelWatch is represented on three high-level industry advisory bodies which bring together representatives of relevant train and infrastructure operators, regulators, trade unions, manufacturers, government departments, academics and consultants to provide specialist support and guidance to their respective sponsoring organisations. These are :

5.2 ORR Rail Industry Advisory Committee (RIAC)

5.2.1 Originally sponsored by the HSC but now maintained by ORR, this is one of a family of such industry-specific bodies. It is unusual in including an element of consumer representation, reflecting the fact that – unlike most manufacturing and many service industries – the safety performance of the railways can impact directly on members of the public at large. Its agenda covers the entire range of the safety regulator's responsibilities, other than prosecutions.

5.3 PACTS Rail Safety Working Party (RSWP)

5.3.1 This brings together the various rail industry bodies which are in membership of PACTS, to provide specialist input into this facet of the organisation's work.

5.4 DfT Transec Rail Advisory Panel

5.4.1 Transec is the Transport Security & Contingencies Directorate of the Department for Transport. A number of its current work streams relate to rail transport, including the experimental use of scanning equipment at termini, the "hardening" of rail stations against attack, and the security implications of EU policies aimed at widening the extent of international passenger rail services. London TravelWatch is represented on a panel of advisers convened periodically to review progress with this work.

6 Research stakeholder groups

6.1 RSSB sponsors an extensive research programme (largely funded by DfT) covering both technical, operational and managerial aspects of safety. All of the output is in the public domain, and can be reached via the RSSB website (see paragraph 2.3.2 above). Each research project has a small bespoke stakeholder group, which is convened to agree the project specification, select the chosen contractor, receive and comment on progress reports, and approve the final report. These groups have a finite life, and exist only for the duration of their respective projects. London TravelWatch has provided a member for those groups which are concerned with topics that it has put forward itself and which have passed the selection process, or with any others that are concerned with issues of immediate relevance to passengers. Such projects have been concerned with (e.g.) barrow crossings, crowding, wayfinding at stations, emergency evacuation from trains, and the interior crashworthiness of rolling stock.

7 Industry topic groups

7.1 These bring together representatives of a range of interested parties from within the industry and (where relevant) from elsewhere to monitor performance in relation to a specific safety topic, disseminate good practice, initiate experiments and apply research findings, and oversee the activities of local groups which are addressing the relevant issue in particular parts of the network. Most have a finite life, and are wound up when their primary purpose has been served. Not all lend themselves to London TravelWatch input, and the organisation has therefore eschewed involved with groups addressing (e.g.) suicides, signals passed at danger, wheel/rail adhesion, bridge strikes or the safety of track workers. But there are a number on which it has served in the past, dealing with (e.g.) personal security, level crossings, route crime (i.e. trespass and vandalism), and "human factors" such as crowd behaviour and disability. It is currently represented on a group sponsoring research into safety elements of train design, and (in the person of a Passenger Focus board member) on a group overseeing the industry's community safety strategy.

8 Relationship with Passenger Focus

8.1 The rationale for London TravelWatch's involvement with rail safety issues set out in paragraphs 3.1 to 3.5 applies equally and identically to Passenger Focus, the terms of reference of the two organisations being – for all practical purposes – identical. They have separate geographical remits, but (unlike some other aspects of their work) these do not impact on the application of rail safety principles and practice. It would therefore make little sense, and be a poor use of public resources, for their work in this sphere to be duplicated. By long tradition, therefore, they have acted jointly wherever appropriate. And since 2002, there has been a formal agreement in place between them under which they share the services of a part-time safety policy adviser, the costs of this post being borne equally by the two organisations.

8.2 In relation to all National Rail matters, the safety policy adviser represents both organisations, and responds to consultations on their joint behalf. London TravelWatch has exclusive functions in relation to the other rail systems in London (i.e. the Underground, DLR and Tramlink), and in dealing with these, he acts in its name alone. Conversely, in relation to the Tyne & Wear Metro and to the tram systems in Blackpool, Greater Manchester. Nottingham, Sheffield and the West Midlands which have recently been brought within Passenger Focus's remit, he acts on behalf of that body. He submits a monthly report on his work to the Chief Executives of the two organisations.

9 Incident reports

9.1 The safety policy adviser receives copies of all of the reports published by RAIB on the accidents and serious incidents it investigates, and is entitled to comment on these at the draft stage if they have given rise to injuries to passengers. In addition, he receives copies of the reports of all formal inquiries convened internally by London Underground into serious safety-related incidents occurring on its system when these affect (or potential to affect) passenger safety, and if there are any issues of continuing concern, he raises these with the senior manager concerned. Summaries of such reports are presented for London TravelWatch board members' information in the case of particularly serious incidents taking place on railways within its remit – though happily the occasion for this has not arisen in the past five years (except in the case of the inquest into the Potters Bar derailment, which was not held until 2010, eight years after the accident concerned). It is noteworthy that there have been no fatalities, and very few injuries, in any of the incidents listed.

9.2 The table appended to this report summarises all of the incidents which have been the subject of RAIB investigations (if they occurred in the London TravelWatch area) or London Underground formal reports since 1.2.06. It is noteworthy that there have been no fatalities, and very few injuries, in any of the incidents listed, during a time in which more than 8 billion passenger journeys have been made on the rail systems concerned.

10 Financial and equalities implications

10.1 This report has no specific implications of this nature.

11 Legal duties

11.1 Section 248 of the Greater London Authority Act 1999 places upon London TravelWatch (as the London Transport Users Committee) a duty to consider - and where it appears to the Committee to be desirable, to make recommendations with respect to - any matter affecting the functions of the Greater London Authority or Transport for London which relate to transport (other than of freight). Section 252A of the same Act (as amended by Schedule 6 of the Railways Act 2005) places a similar duty upon the Committee to keep under review matters affecting the interests of the public in relation to railway passenger and station services provided wholly or partly within the London railway area, and to make representations about them to such persons as it thinks appropriate.

12 Recommendation

12.1 That the report be received for information.

13 Glossary

BTP	British Transport Police
DfT	Department for Transport
DLR	Docklands Light Railway
EU	European Union
HMRI	Her Majesty's Railway Inspectorate
HSC	Health & Safety Commission
HSE	Health & Safety Executive
ORR	Office of Rail Regulation
PACTS	Parliamentary Advisory Council for Transport Safety
RAIB	Rail Accident Investigation Branch
RIAC	Rail Industry Advisory Committee
ROGS	Railways & Other Guided Transport Systems (Safety) Regulations 2006
RSSB	(formerly) Rail Safety & Standards Board
RSWP	Rail Safety Working Party
SPAD	Signal passed at danger
Transec	Transport Security & Contingencies Directorate

SUMMARY OF RAIB INVESTIGATION REPORTS INTO INCIDENTS OCCURRING IN THE LONDON RAILWAY AREA, AND OF LONDON UNDERGROUND FORMAL INQUIRY REPORTS, SINCE 1.2.06 WHERE THESE AFFECT PASSENGER SAFETY ISSUES				
Date	**Location**	**Line/operator**	**Nature of incident**	**Subject of recommendations**
10.2.06	Acton Town	Piccadilly line	Passenger fell between train and platform (unharmed) when alighting at same location that a fatality had recently occurred in similar circumstances	- adequacy of platform lighting, mirrors and CCTV monitors at station - "door close" indications to passengers - under-platform lights
19.3.06	Manor Park	NX East Anglia	Train struck wheelbarrows wrongly placed on track by maintenance staff	- review of possession planning arrangements - risk assessment of long (v multiple short) work sites - supervision of work sites
7.4.06	Camden Road	Silverlink	Error in control wiring allowed train to pass signal at danger, causing collision risk	- testing of train controls after repairs - management of component replacement process - competency of staff carrying out rectification work
29.4.06	High Street Kensington	District line	Misrouting of train necessitated reversing manoeuvre during which driver passed signal at danger causing collision risk	- safety critical communications - track familiarisation procedures - training in wrong-direction movements and use of signal post telephones - maintenance of emergency equipment
25.5.06	Phipps Bridge	Tramlink	Tram partially derailed when points moved as it was passing over them	- arrangements for identifying and specifying defects in points mechanisms - driver training - implementation of recommendations arising from earlier (2005) derailment at same location
16.6.06	Bank	Central line	Passengers detrained in tunnel after long delay when electrical shoe gear under preceding train became detached;	- welding repair process - shoe gear design - battery life for emergency lighting on trains
11.9.06 24.10.06	Waterloo	SW Trains	On two separate occasions, trains entering station derailed after maintenance work on points	- guidance on points inspections - staff selection and competency - points components held in stock
12.9.06	Epsom	SW Trains	Misalignment and lack of lubrication of track caused partial derailment of train approaching station	- resourcing of track maintenance organisation - staff instructions re reporting poor rail condition - use and siting of rail lubricators
13.1.07	Merstham	Southern	Passengers detrained after train partially derailed in collision with debris from landslip in cutting	- management of tree root balls in cuttings - inspection of earthworks - emergency evacuation strategies from deep cuttings

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Date	**Location**	**Line/operator**	**Nature of incident**	**Subject of recommendations**
9.2.07	Kennington	Northern line	Trains collided with pieces of wood blown onto track from cross-passage	- risk assessment requirements in contracts - radio communications - training of service controllers - storage of materials in tunnels - implementation of previous inquiry recommendations
16.2.07	Oval	Northern line	Passengers boarded train running out of service with defective (open) doors when it stopped to set down member of staff	- briefing staff on rules relating to operation of trains with door defects, including use of such trains by staff themselves
4.5.07	Goodge Street	Northern line	First train collided with an “iron man” (an item of engineering equipment) left on track	- procedures for handing back work sites at end of engineering hours - training of relevant staff
10.6.07	Camden Town	Northern line	Train left station in wrong direction following crew change necessitated by earlier misrouting of train	- “best practice” guidelines for crew changes - familiarisation of train operators with station layouts - fitment of notices and warning lights to mitigate risk of wrong-direction moves - means for drivers leaving cabs prior to crew changes to give “correct cab” indication
15.6.07	Hammersmith	Hammersmith & City line	Unauthorised reversal after train passed signal at danger	- safety critical communication procedures - rebriefing of signal operating staff
15.6.07	Wellesley Road	Tramlink	Man’s hand became trapped in doors as he attempted to delay departure of tram	(none)
5.7.07	Mile End	Central line	Train collided with roll of fire retardant material blown onto track from cross-passage and partially derailed	- rules for, and risk assessment of, storage of materials near track - staff training in effect of wind in cross-passages - instructions for use of fire resistant blankets - possible fitment of lifeguards to Underground trains - improvement of investigation procedures
27.8.07	Aylesbury	Chiltern	Risk of collision arose when signalling irregularity allowed a passenger train to enter a section of track already occupied by a freight locomotive	- revision and briefing of operating instructions for single lines worked with token instruments

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Date	**Location**	**Line/operator**	**Nature of incident**	**Subject of recommendations**
12.10.07	Hanger Lane	Central line	Train reversal following points failure caused risk of collision	- rules governing wrong-direction moves - staff training - safety-critical communications
1.11.07	Tooting Broadway	Northern line	Alighting passenger dragged short distance by train when her coat became trapped in door	- reminding train operators of need for close observation of all doors before starting away - investigation of reasons for apparent greater frequency of dragging incidents on Northern line
25.1.08	Paddington	Bakerloo line	Unauthorised reversal caused train to pass signal at danger	- siting and marking of stopping points at station - design of train stop equipment - CCTV and radio system - survey of other similar locations
3.4.08	Neasden control centre	Jubilee line	Power failure caused 9 trains to be stalled in tunnel with long delays in detraining passengers	- detrainment procedures - emergency planning - battery system design and maintenance - electrical supply to safety critical systems - power supply resilience
4.4.08	Deptford Bridge	Docklands Light Railway	First train struck drilling rig left on track and partially derailed	- safety critical communications - responsibility of site supervisors for checking that track is clear - use of “sweep trains” following engineering work
28.5.08	NX East Anglia	Liverpool Street	More than 1000 passengers detrained to track after train collided with debris which had fallen from newly constructed overbridge	- safety management procedures for construction work on or over operational railway - information for operational staff about construction projects - emergency plans for post-incident recovery work - safe use of polytetrafluoroethylene surfaces in bridge bearings
24.6.08	Acton West junction	First Great Western	Passengers evacuated after train suffered damage in collision with rail grinding machines on track	- safe planning and management of engineering work on tracks - layout signage at access points - balance of work between safety-critical staff

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Date	**Location**	**Line/operator**	**Nature of incident**	**Subject of recommendations**
27.7.08	New Southgate	NX East Coast	Luggage van door became detached and struck passing train causing minor injury to one passenger	- design and maintenance of luggage van doors - rules governing entry into service of trains with known defects
10.3.09	North Quay junction	Docklands Light Railway	Train traversed points set for movement in opposite direction and partially derailed	- location and conspicuity of point direction indicators - change control procedures for design and operation of railway - alarm management system in control centre
27.3.09	Hanger Lane junction	District and Piccadilly lines	Train passing signal at danger (SPAD) caused risk of collision	- identification of sites with similar signalling layout - guidelines for signallers' action following SPADs - safety critical communications - reporting of signals passed at danger - use of simulators in competence assessments - guidance to managers on medical working time restrictions
23.9.09	Eurostar	St Pancras International	Overhead electrification wire failed and fell onto platform, narrowly missing passengers exiting from train	- maintenance of electrical supply components - management of safety related equipment - risk from broken overhead wires generally - controllers' awareness of safety procedures
11.10.09	Windsor & Eton Riverside	SW Trains	Charter train partially derailed on approach to buffer stops, owing to track spread caused by decaying sleepers	- competency of track inspection staff - gauge measurement checks - follow up of previous audit findings
14.11.09	Feltham	SW Trains	Scour created void in abutment of bridge over River Crane, resulting in its partial collapse and necessitating total reconstruction	- checking of bridges generally - reporting by third parties of obstructions to river flow - role of bridge examiners
17.11.09	Mile End	Central line	Three passengers struck by loose inter-car barrier	- replacement of barrier cords - procedure for reforming (assembling) trains - training of train maintenance staff - communication protocols
19.1.10	Aldgate	Circle line	Train collided with scaffolding beam erected above track which infringed clearance gauge	- design of safety hoardings at worksites - site management procedures - clearance and gauging process and documentation

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Date	**Location**	**Line/operator**	**Nature of incident**	**Subject of recommendations**
4.2.10	Romford	NX East Anglia	Two passengers on platform suffered minor injuries from stones which fell from ballast wagons passing station at speed	- modifications to wagons - checking closure of wagon doors - staff training and competency
8.2.10	Arnos Grove	Piccadilly line	Train operated in passenger service with known door defect	- communication protocols - air filters on solenoid valves
17.2.10	Liverpool Street to Stratford	Central line	Prolonged delays in releasing passengers when signal failure caused 14 trains to be stalled in tunnels	- identification of stalled trains by controllers - competency of control room staff - emergency plans - use of train radio system
2.7.10	Barking	District line	Trackside fire destroyed signal cables resulting in 22 stalled trains and several detrainments to track	(report awaited)
13.8.10	Highgate	Northern line	An empty passenger train was being used to tow a stalled rail grinding unit (RGU) when the coupler between them broke allowing the latter to roll unbraked under gravity as far as Warren Street	- requirements for RGU approval for use - risk assessment of RGU operation - strategy for use of specialist engineering vehicles on the Underground
8.9.10	Plaistow	District line	Signal irregularity allowed train to be routed onto track in wrong direction	(report awaited)
18.10.10	St John's Wood	Jubilee line	Contact between train and tunnel telephone wire resulted in traction current discharge and delayed release of passengers from 5 stalled trains	(report awaited)
5.11.10	Oxshott	SW Trains	One serious and several minor injuries caused to passengers when cement tanker lorry fell through parapet of overbridge onto train passing below	(report awaited)
29.1.11	Clapham North	Northern line	Visually impaired passenger suffered minor injuries after alighting from train, crossing island platform and falling onto opposite track	(report awaited)