National Safety Authority (NSA)

Report 2008

September 2008

OFFICE OF **RAIL REGULATION**

Contents

Scope of the report

This report covers the period from 1 January 2007 to 31 December 2007; it is concerned with the UK mainline railway system as a whole and does not restrict itself to the interoperable railway. It does not include metros, trams and other light rail systems, networks that are functionally separate from the rest of the railway or privately-owned railway infrastructure that exists solely for the use by the infrastructure owner for its own freight operations.

Safety Authority responsibilities in the UK are shared between the Office of Rail Regulation (ORR) and the Department for Regional Development in Northern Ireland (DRDNI). ORR is the NSA (National Safety Authority) for England, Scotland and Wales (known collectively as Great Britain – GB) and the DRDNI is the safety authority for Northern Ireland. It has been agreed, however, that the GB safety authority, ORR, will represent Northern Ireland in relations with the European Rail Agency (ERA). Taken together, the two authorities carry out the functions of the safety authority of the UK. Part 1 of the report refers to Great Britain and Part 2 refers to Northern Ireland.

The Common Safety Indicator (CSIs) data at Annex C relates only to rolling stock in motion and includes passengers, workers, members of the public and emergency services. This data is aggregated at the UK level, and therefore combines the data relating to GB and Northern Ireland. Statistics quoted in this report relate to CSIs.

Summary

Overall, safety on UK railways continued to improve in 2007. There were three passenger fatalities, two staff fatalities and 20 public fatalities (giving a total of 25 fatalities). This is the smallest number of fatalities on record in any reporting year. The derailment at Grayrigg in February 2007 was the first train accident to result in an onboard fatality in the UK for more than two years – the longest such period since rail became an established means of transport.

Generally safety trends for passengers and the workforce also continue to improve although the number of serious injuries to passengers increased compared to 2006 because of the incident at Grayrigg. There was also a rise in train accident figures between the two years.

However, it is not possible to establish any definitive trends from just two years figures, particularly as one incident significantly affected the injury figures. For members of the public, safety trends remain more variable, with their exposure to risk being greatly influenced by their own behaviour, rather than being under the direct control of the industry.

Incidents at level crossings remains one of the key safety risks and this is reflected by the increase in fatalities across the UK in 2007. ORR is working closely with the rail industry in GB to deliver improvements in level crossing safety and the campaign with the highest profile, 'Don't Run The Risk' was aimed at promoting the safe use of level crossings.

ORR has continued to work closely with GB industry over the reporting period, producing guidance on the application process for safety authorisations and safety certificates and criteria to aid the assessment of 'functionally separate' (see paragraph 4.5 on page 13). We have also liaised with industry on system risk and the 'duty of cooperation' resulting in the publication of a statement outlining our role as the safety authority. We were able to deal with any issues arising during the safety certificate/authorisation application process through dialogue with the relevant parties. We also continue to give high priority to handling RAIB recommendations to ensure lessons learnt from the their investigations result in improvement in rail safety.

Introduction

This is the second Annual Safety Report produced and published by ORR as required by Article 18 of the Railway Safety Directive 2004/49/EC. It is to be published on both the ORR and ERA public websites, and will contribute to the ERA biennial report on safety performance in member states, the first of which will be published in 2008. The information in this NSA report will be of interest to railway undertakings and infrastructure managers in the UK in addition to ERA and National Safety Authorities in other member states.

Article 18 of the Railway Safety Directive states;

Each year the safety authority shall publish an annual report concerning its activities in the preceding year and send it to the agency by 30 September at the latest. The report shall contain information on;

(a) the development of railway safety including an aggregation at member state level of the CSIs laid down in Annex I;

(b) important changes in legislation and regulation concerning railway safety;

(c) the development of safety certification and safety authorisation; and

(d) results of and experience relating to the supervision of infrastructure managers and railway undertakings.

ERA has updated and issued guidance and a template based on the experience of the first year of reporting. This report adheres to the suggested structure and content of the updated documents as much as practicable.

The following directives have been fully transposed into GB national law.

a) Directive 004/49/EC, Chapter II, Chapter III (excluding Article 13) and Chapter IV

have been implemented by The Railways and Other Guided Transport Systems (Safety) (ROGS) Regulations 2006.

b) Directive 2001/16/EC and Directive 98/48/EC have been implemented by The Railways (Interoperability) Regulations 2006.

c) Directive 004/49/EC, Chapter III, Article 13 is implemented by the Railways (Access To Training Services) Regulations 2006 - known as 'ATS' or 'the ATS Regulations'. The ATS regulations came into force at the same time as ROGS.

Directive 004/49/EC, Chapter V has been implemented by The Railways (Accident Investigation and Reporting) Regulations 2005 in Great Britain and Northern Ireland.

Directive 004/49/EC has been implemented in Northern Ireland by the Railway Safety Management Regulations (Northern Ireland) 2006.

Part 1 - Great Britain

The Safety Authority for England, Scotland and Wales

1.1 The GB part of the UK's National Safety Authority, the Office of Rail Regulation was established on 5 July 2004 under the Railways and Transport Safety Act 2003. ORR is an independent statutory body led by a Board. The Secretary of State for Transport makes appointments to the Board for a fixed term of up to 5 years.

1.2 ORR has a range of statutory powers under the Railways Act 1993. It also has concurrent jurisdiction with the Office of Fair Trading under the Competition Act 1998.

1.3 Our three-year corporate strategy was published in April 2006 and will take ORR to 31 March 2009. The strategy sets out our long-term vision for the mainline railway industry:

'a successful partnership of Network Rail, operators, suppliers and funders working together to meet the needs of passengers and freight customers, and deliver a safe, high performing, efficient and developing railway.'

1.4 ORR's five priority areas are:

- improving health and safety;
- securing improved efficiency and performance;
- securing robust plans for 2009 and beyond through the periodic review process;
- improving and aligning relationships and incentives in the industry; and
- being an efficient and effective combined safety and economic regulator.

1.5 We are currently developing our corporate strategy for the period 2009 – 2014 which we expect to publish in December 2008. It will be based on 5 themes; *more effective partnerships, protecting customers, ever better value, ever better management of physical and people assets and investing more in relationships*.

1.6 ORR's main office is near Covent Garden in London with additional offices at various locations across England, Wales and Scotland. ORR's workforce numbers around 350 people in total.

1.7 Within ORR, Her Majesty's Railway Inspectorate has a key role in meeting GB's obligations to enforce European Union health and safety law, focusing effort on the most serious risks and the areas where intervention will have most effect. On 31 December 2007 there were 154.4 full-time equivalent staff in HMRI.

1.8 ORR's priorities for improving health and safety performance are to:

- continue to actively support the industry with the implementation of the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS) and, where necessary, enforce the effective implementation by duty holders so that safety performance is maintained and, where reasonably practicable, improved;
- continue with our targeted inspection plans for all the mainline rail companies and London Underground, trams, metros and heritage railways;
- encourage duty holders to take risk-based decisions within the context of their safety management systems;
- assess and approve requests for equipment under the regulations which preceded ROGS, make level crossing orders, assess safety management systems, and requests for safety certificates and authorisations;
- review findings and recommendations arising from Rail Accident Investigation Branch (RAIB) investigations; give consideration to them and where appropriate act upon them, ensuring duty holders take action when necessary;
- investigate important incidents and follow up significant complaints;
- monitor, review, evaluate and report on the effectiveness of the ROGS regulations, level crossings legislation, and safety regulations;
- continue to develop our strategy as a combined safety and economic regulator and our priorities going forward, involving the full range of stakeholders; and
- develop position statements on key safety issues.

See Annex A1 for the mainline network map of Great Britain (GB).

See Annex A2 for list of railway undertakings and infrastructure managers having a service in Great Britain.

See Annex B1 for ORR organisation chart as at 31 December 2007.

See Annex B2 for the regulatory structure in GB and relationship between ORR and other rail industry stakeholders.

Development of railway safety

2.1 Railway safety continued to improve in 2007 – injuries to and assaults on employees, the numbers of train incidents and signals passed at danger all fell. Our approach to railway safety builds on the opportunities we have as an integrated regulator to promote continuing improvements in both efficiency and safety performance.

Table 2.1 – Safety measures triggered by accidents

Accident/precursor which triggered the measure			Safety measure decided
Date	**Place**	**Description of the event**	
23/02/07	Grayrigg	At 20:15 hrs on 23 February 2007 the 17:15 390 Class Virgin Pendolino train from London Euston to Glasgow, derailed near Grayrigg (between Oxenholme and Tebay) in Cumbria at a speed of approximately 95 mph. All vehicles in the train derailed; the train came to rest with six of the nine vehicles down an embankment and at varying angles from the track.	Following the accident, parallel investigations have been carried out by Rail Accident Investigation Branch (RAIB), British Transport Police (BTP), ORR and a railway industry group comprising of the infrastructure manager and the train operating company. The industry investigation concluded that the immediate cause was a fault with a set of points. The report makes 14 recommendations with 19 further specific actions to reduce the chance of a repetition. Details of the actions taken so far by the infrastructure manager can be found at http://www.networkrailmediacentre.co.uk/Content/Detail.asp?ReleaseID=3308&NewsAreaID=2&SearchCategoryID=5 Publication of the final RAIB investigation report, which will make related recommendations to improve safety is awaited. ORR and BTP investigations are continuing.

2.2 This was the second year of collecting common safety indicators (CSI)[1] data. We saw an increase in 2007 in the numbers of train accidents, fatalities and serious injuries to passengers compared with 2006. However we also saw a decrease in serious injuries to employees and level crossing users and a general decrease in precursors. There is insufficient historical CSI data for the identification of significant long term trends but some initial analysis shows:

- bad weather early in 2007 contributed to the increased number of train collisions;
- the increase in serious injuries can be attributed to the accident at Grayrigg; and
- there was an increase in the number of fatalities at level crossings. However the railway industry continued its efforts to reduce level crossing risk. Most visible was the 'Don't Run the Risk' campaign aimed at educating level crossing users in the dangers of misuse and how to use level crossings safely. The infrastructure manager also implemented an improved level crossing risk modelling and assessment process with increased emphasis on human factors in level crossing design.

CSI data will continue to be monitored to determine trends in future years.

See Annex C for CSI data graphs

2.3 This was the second full year since RAIB became responsible for investigating incidents on Britain's railways, RAIB's remit is to carry out a no blame investigation into railway incidents and to determine root cause. ORR remains responsible for investigating incidents to determine whether any breaches of health and safety law occurred and for taking enforcement action as appropriate. Cooperation on site between ORR and RAIB where both parties have been investigating has been very good. During 2007 RAIB published 46 reports containing a total of 256 recommendations. We agreed closure of 74 recommendations covering a range of issues, including fatigue management, rolling stock modification, standards of track maintenance on private freight lines, and the use of the hazard brake in tram operation.

1 CSI data relates only to incidents involving rolling stock in motion.

Important changes in legislation and regulation

3.1 No new legislation was introduced in 2007.

3.2 There were no new national safety rules notified in 2007.

The development of safety certification and authorisation

4.1 The ROGS Regulations came into force on 10 April 2006 and the requirements regarding safety certificates and safety authorisations applied from 1 October 2006.

4.2 Transitional arrangements put in place meant that the holder of an accepted railway safety case (RSC) under the previous Railways (Safety Case) Regulations 1994 was deemed to comply with the requirement to obtain a safety certificate and/or safety authorisation until a specified date. After that date they needed to have obtained a full certificate and/or authorisation under ROGS. This date depended on when their RSC periodic review would have fallen due. Full certificate/authorisations are required by 1 October 2008.

4.3 Under parts 2 and 3 of ROGS (which are based on chapters III and IV of the Railway Safety Directive) we have a duty to assess applications for safety certificates and authorisations, including amendment applications. While carrying out assessments, our inspectors identify areas of concern and raise these with the duty holder.

4.4 Each duty holder has to provide evidence of how it plans to co-operate with other duty holders. We developed and published a statement which provided a summary of our role as the safety authority in line with ROGS 'duty of cooperation'.

4.4 In 2006, we led a project involving the Association of Train Operating Companies (ATOC) to develop guidance and a template to be used by rail companies for submitting safety certificate submissions to ORR. The template was widely used by rail companies in 2007.

4.5 ROGS includes the concept of 'functionally separate'. We worked with the rail industry to produce guidance to help determine whether an operation is likely to be 'functionally separate' and so be excluded from the mainline requirements of ROGS. The guidance contains criteria that infrastructure managers and railway undertakings can use if there

is uncertainty about the status of the system in operation.

4.6 Relevant national legislation and guidance can be found via the ORR website.

4.7 One part A/B certificate was amended/updated in 2007 to enable a railway undetaking to operate on High Speed 1(Channel Tunnel Rail Link)[1].

4.8 All Part A/B certificates and authorisations were issued within the four months foreseen in Article 12(1) of the Safety Directive.

4.9 There were no requests from other national safety authorities to verify/access information relating to a Part A/B certificate or authorisations issued in the UK.

a) We are aware of one problem of acceptance of a part A issued in the UK not being accepted in Spain, who had also refused part A certificates from other Member States. We believe the particular company actually applied for and received a part A in Spain as they did not wish to make an issue of the problem as it would affect them commercially.

b) There was one example where a company applying for a Part B certificate in the UK had only produced a letter from the French Authorities stating that they had met the requirements of a Part A certificate in France. We refused to accept the letter and insisted that we needed a copy of the certificate in the correct format. The certificate was eventually produced.

4.10 We do not charge a fee for issuing Part A/B certificates or authorisations.

4.11 There were no problems using the harmonised format for Part A/B certificates.

a) We did not experience any major problems with the application procedures for Part A/B certificates due to the use of the common template and associated guidance.

b) We issued all certificates/authorisations within the required timescale but found that the timescale was particularly challenging when dealing with refranchising cases.

c) Our procedures have been subjected to an ongoing review and amendments have been issued as bulletins. In addition we also updated and reissued our assessment manual in September 2007. The assessment manual sets out a transparent and balanced framework within which we make decisions on applications.

d) Some train companies found it difficult to identify and liaise with all affected parties in particular during re-franchising if the new franchise included staff from more than one previous franchise holder.

e) There were instances of train companies providing either too little or too much information but these issues were able to be addressed during the assessment process.

f) There was some misunderstanding by companies about whether they could apply for a Part B certificate in this country before their Part A was issued in their home

1 A Part A certificate shows that the holder's safety management strategy meets generic requirements and is transferable across the EU. A Part B certificate shows that the holder has adopted safety provisions to operate safely on a particular network within an EU member state.

country. This was quickly resolved through dialogue with the relevant parties.

See Annex E for numerical data on safety certifications and authorisations

The supervision of railway undertakings and infrastructure managers

5.1 In addition to statutory and reactive work our inspectorate's (HMRI) annual work programme consists of two proactive components; one based on the identification of risk based topics applicable across the industry as a whole; and one based on duty holder specific issues.

5.2 The topic strategies enable HMRI to plan inspection activities in accordance with ORR's corporate strategy and business plan and its specific commitment that the inspectorate's activities will primarily be driven by risk and the likely effectiveness of the intervention. The strategies set out what we aim to achieve and include potential work streams for ensuring that the risks associated with individual topics are properly managed by duty holders. Our topic strategies are;

- *employees safety;*
- *command control and signalling;*
- *level crossings;*
- *track, including switches and crossings;*
- *health and safety management systems and risk assessment;*
- *human factors;*
- *occupational health;*
- *traction supply systems;*
- *railway operations;*

- *rolling stock;*
- *route crime;*
- *stations;*
- *structures; and*
- *vehicle and animal incursion*

5.3 We produce an annual Operational Plan on the basis of a fiscal year. As part of the operational plan our National Train and Freight Delivery Plan sets out our inspection work with the mainline railway undertakings and our Network Rail Delivery Plan sets out our inspection work with the infrastructure manager. The delivery plans outline the number of days allocated to assignments; each assignment relates to a topic strategy and may consist of a number of inspections, we do not plan a specific number of inspections and therefore cannot provide this figure.

5.4 Assignments have three main purposes:

- to direct inspector resources to important areas, in accordance with strategy, for them to be inspected and assessed locally, and local action taken as a result.;
- to capture the outcomes of the inspections systematically so as to judge and report upon the national safety performance; and
- to use judgements about national performance to seek improvements via the national issues system.

Summaries of main findings by topic and inspection assignment

5.5 We found that the infrastructure manager on the national network generally has good safety management systems and a strong high level commitment to safety but we found weaknesses in; *compliance with rules; monitoring compliance; and risk perception.*

- *User-Worked Crossings:* We found that signallers in some places were unable to reliably identify the location of trains, and this was associated with several near misses and a collision. The infrastructure manager has undertaken to address this issue nationally;
- *Maintenance of public and automatic crossings:* we found broad compliance with maintenance standards, implemented by competent staff, though sometimes there were delays to fault rectification.
- *Signalling maintenance technician competence:* there were delays to implementation of Assessment in the Line at every depot we visited, so that the Authority to Work certificates were often overdue. We will continue to follow this up early in the 2008 - 09 work year;
- *Track worker safety from trains*: there was evidence of improvement at most worksites, though weaknesses persisted at a sizeable minority arising from difficulties in the planning system, malpractice at ground level and little firm supervision. Unannounced inspections revealed poorer standards.
- *Post-Grayrigg patrolling validation:* we found that track patrolling was carried out by competent staff with a high priority, but that the process was not robust. Numerous minor concerns, taken as a whole, presented a risk of defects going undetected. Although the likelihood of a major failure was low, the high potential

consequence led us to serve an Improvement Notice.

- *Track asset – longitudinal wheel timbers:* inspectors found that adequate management arrangements were in place, and competent inspection staff were inspecting the bridges and identifying necessary work;
- *Structures – extreme wet weather:* we were reassured at the national level by the infrastructure manager's review and revision of its guidance on earthwork and drainage examination.

5.6 We found that the main railway undertakings managed and controlled their risks satisfactorily, although there were some weaknesses.

- *Fatigue:* We sampled dutyholder's systems for managing fatigue risks for some key worker groups and found that companies manage fatigue to varying but acceptable standards with results indicating that arrangements were in place to prevent errors from fatigue.
- *Risk Assessment:* We found that the dutyholders we sampled have systems to assess and manage the risk that their operation presents; however it was noticeable that there is a lack of assessors that have been trained in risk assessment techniques.
- *Safety critical communications:* We found that good progress had been made by dutyholders in respect to the quality of safety critical communication training and the effectiveness of monitoring arrangements. However we will continue to encourage dutyholders to improve their systems to prevent communication failures.
- *Management of change:* Generally we found that management systems to plan and implement organisational change were adequate. Good practice included forming change management teams when a particularly large change management programme was embarked upon.
- *Shunting:* We found shunting activities to be well managed; however the standard of safety critical communications within the shunting environment was variable. This was a concern because proper communication underpins the safe systems of work.
- *Duty of cooperation, low adhesion and system risk:* We looked at the cooperation between the Railway Undertakings and the infrastructure manager in preparing for the leaf fall season and the jointly managed risk of low adhesion between wheel and rail. We found that they complied with their duties under ROGS to cooperate to control the risks . There were effective local liaison arrangements and very good working relationships enabling plans to be put in place to address the issues. We were reassured that in this area railway dutyholders were managing system risk effectively.

5.7 We issued 11 Improvement Notices and two Prohibition Notices in 2007. A total of £215,000 in fines was imposed on railway companies as a result of three prosecutions being completed.

5.8 All Railway Undertakings/Infrastructure managers that were required to complete and submit an Annual Safety Report to the NSA did so although six dutyholders failed to meet the deadline.

Conclusions and future priorities

6.1 The safety standards achieved for GB continued to improve in 2007 despite the passenger fatality as a result of the derailment at Grayrigg in Cumbria.

6.2 We continue to review and update our topic strategies to ensure they are robust, support and underpin our inspection programme and inform our future planning. Priority topics will include level crossings, track worker safety and command control and signalling with competence issues as a key common thread.

6.3 Inspection assignments will be tailored to target specific areas of risk identified nationally and locally such as examinations of the inspection and maintenance of switches and crossings in relation to derailment risk and regimes for rolling stock maintenance. Our assignments will also enable us to test the effectiveness of safety management systems as part of our ongoing programme to test compliance with ROGS.

Part 2 - Northern Ireland

Scope of the Report

1.1 This section of the report covers the railway system in Northern Ireland for the period 1st January 2007 to 31st December 2007. There are no metros, trams or other light rail systems in Northern Ireland, nor is there any privately owned railway infrastructure.

1.2 Translink is the brand name of the integrated public transport operation of Citybus, NI Railways (NIR), and Ulsterbus. NIR operates a fully integrated system, acting as both Infrastructure Manager and Train Operator. The Department for Regional Development assists NIR to operate rail services. Funding helps maintain and develop the rail infrastructure, (track, stations, bridges, level crossings) and rolling stock, which includes trains, equipment and associated plant machinery.

1.3 Heritage and Tourist Railways in Northern Ireland are privately owned and run, for the most part on dedicated track. They do not provide passenger services for the travelling public and are not funded by the Department. They are however a valuable tourist and heritage amenity.

1.4 All railway operators in Northern Ireland including light and heritage railways are required to comply with regulations introduced by the Department to further improve railway safety. In some circumstances heritage railways operating on their own tracks and at a line speed that does not exceed 25mph/40km may be exempted from some regulations where the Department is satisfied that the safety of passengers and the general public is not compromised. The Department is currently considering risk assessments provided by heritage operators that fall into this category.

See Annex F for Northern Ireland railway network map

Safety authority for Northern Ireland

2.1 In Northern Ireland the Safety Authority for the purpose of implementing the Railway Safety Management Regulations(Northern Ireland) 2006, is the Department for Regional Development, established by article 3(1) of the Departments (Northern Ireland) Order 1999

2.2 The Department's key responsibilities as Safety Authority are:

- to ensure that Northern Ireland Railways, the operator of the public railway service in Northern Ireland, manages the network efficiently and in a way that meets the needs of its users;
- to encourage continuous improvement in health and safety performance;
- to secure compliance with relevant health and safety law, including taking enforcement action as necessary;
- to develop policy and enhance relevant railway health and safety legislation; and
- to issue or refuse safety certificates to railway operators in accordance with the Railway Safety Management Regulations.

2.3 The Safety Authority duty is managed by the Department's Ports and Public Transport Division, 3rd Floor Clarence Court 10-18 Adelaide Street, Belfast BT2 8GB.

2.4 The Department's role as Safety Authority for Northern Ireland is to:

- provide the appropriate regulatory framework so that railway safety is generally maintained and, where reasonably practicable, continuously improved;
- assess each duty holder's application for safety certificates and authorisations, including its co-operation arrangements;
- assess whether safety is being achieved by inspecting duty holders' safety management systems (SMSs) and assessing available safety information and data.; and

- authorise the placing into service of structural subsystems in Northern Ireland on the UK trans-European network; and check that they are operated and maintained in accordance with the essential requirements.

Development of railway safety in Northern Ireland

3.1 The Railway Safety Management Regulations (Northern Ireland) 2006 are aimed at harmonising safety standards on the NI railway network. These regulations enable Northern Ireland to play a full part in the development of the single European railway. Specifically the new framework for rail safety will:

- bring together and streamline rail safety requirements to secure greater proportionality to risk and reduce costs; and
- apply the same principles of regulation to heritage and tourist railways, but only in proportion to risk and the character of the railway operation.

In 2007, under the streamlining programme, three sets of proposed NI regulations were replaced by one, making safety regulation more effective, better focused, more coherent and less bureaucratic.

Common Safety Indicators (CSIs)

3.2 CSI data has been collected. The data is broadly similar to that for 2006 and there is therefore insufficient historical data for comparisons or the identification of trends. This area will remain under consideration to determine trends in future years.

Rail Accident Investigation Branch

3.3 The Rail Accident Investigation Branch (RAIB) established by the Railways and Transport Safety Act 2003 is established on a UK-wide basis and undertook two investigations in NI in 2007.

- The first investigation was of a derailment of a Northern Ireland Railways (NIR) ultrasonic test train running from Portrush to Coleraine at Cromore County

Antrim on 14th April 2007. No-one was injured in this accident; the underside of the test vehicle was severely damaged, and there was minor damage to the track. NIR cooperated fully with the investigation. Seven recommendations were made, five of which were directed at NIR. Three of these recommendations have been completed, one is in progress and the Department, as the Safety Authority, is currently in discussion with NIR regarding implementation of the final recommendation.

- The second investigation was of a collision involving a passenger train operated by NIR and a tractor on a user worked crossing (XL202) on the Londonderry line on 2nd August 2007. The tractor driver was killed in the accident and the train driver suffered shock and was taken to hospital. The passengers on the train and the remaining member of staff were uninjured. The train was damaged in the collision and the tractor was destroyed. The RAIB report makes clear conclusions into the causes of the accident. The immediate cause of the accident was that the tractor driver drove his vehicle onto the crossing as the train approached. Arising from their investigation, the RAIB made six recommendations directed at NIR. Four of the recommendations are in progress and NIR are in discussion with the Department regarding implementation of the remaining two recommendations.

Important legislative changes

4.1 The Railway Safety Management Regulations (Northern Ireland) 2006 made on 25th May 2006 implement in Northern Ireland part of the EU Railway Safety Directive 2004/49/EC (RSD) aimed at harmonising safety standards on the European Railway Network. The regulations were made under the Health and Safety at Work (Northern Ireland) Order 1978 (HSWO) as the detail of the Directive applies to the safety of workers and passengers. This is in line with Government policy to use related domestic legislation, instead of section 2(2) of the European Communities Act, unless there are good reasons to do otherwise.

4.2 The Regulations, which came into force on 30th June 2006, contain transitional provisions requiring NIR to comply with the provisions of regulations 3(1) and (2) by 30th June 2008. These provisions contain prohibitions in relation to the operation of trains or vehicles on any railways and the management and use of infrastructure unless a person has established and is maintaining a safety management system and in specified cases has a safety certificate in relation to the operation of vehicles or a safety authorisation in relation to the management and use of infrastructure. Part 2 also makes provision in relation to requirements for a safety management system, the issuing, amendment and revocation of safety certificates and authorisations and for the giving of notices to the Department. Part 3 of the Regulations provides for general duties on any railway operators subject to the duties in Part 2 to carry out risk assessment, cooperate with each other and certain other persons and to prepare an annual safety report to the Department by 31st August each year. In discussions on these issues in the recent past, NIR agreed to provide the Department with its application for a safety management system in January 2008

4.3 The Department for Transport (DfT) in London have implemented the remaining provisions of the RSD on a UK-wide basis, in part through regulations detailing the functions of the RAIB. The RSD requires Member States to create a regulatory framework for rail safety and a Safety Authority. In Northern Ireland railway operators

are already subject to the general duties in Sections 2 and 3 of the HSWO which set out the level of safety to be achieved for both workers and the public. In line with the requirements of RSD, these requirements must be generally maintained, but we believe there is no need for additional general duties of this nature to be placed on railway operators for the reasons given above.

Safety Certificates

4.4 An application for a first safety certificate was at an advanced stage of preparation by NIR during the period of this report. The Department anticipates receiving and considering this application in its role as Safety Authority within the incoming year. No Part A or Part B certificates have been issued in Northern Ireland during this period.

4.5 We received no requests in this period from other National Safety Authorities to verify/access information relating to a Part A certificate of a railway undertaking that has been certified in the UK but applies for a Part B certificate in another member state.

Further legislative changes

4.6 The Department introduced a further three sets of secondary regulations on 26th January 2007 under the Railway Safety Act 2002 to further improve railway safety in Northern Ireland:

- Railway Safety Regulations (Northern Ireland) 2007: these provide for Train Protection and Warning Systems (TPWS) to be fitted to all trains and at key junctions and other danger points across the network;
    - Prohibit Mark 1 Rolling Stock and Slam doors and require automatic warning systems and on-board data recorders (These regulations will not apply to railways running on their own tracks that do not exceed a speed of 25mph on any part of the line).
- Railways Safety (Miscellaneous Provisions) Regulations (Northern Ireland) 2007: will replace a large number of old provisions dating back to 1842, by five new goal-setting duties which cover
    - the prevention of unauthorised access (e.g. by fencing);
    - the means of passenger communication on trains;
    - the prevention of collisions and derailments (e.g. adequate signalling systems);
    - adequate braking systems, and
    - the prevention of accidents to staff (e.g. trackside workers) from moving trains.
- The Private Crossings (Signs and Barriers) Regulations (Northern Ireland) 2007: these deal with placing of signs and barriers at private crossings and are aimed at further improving safety for the public traveling on and crossing railway lines.

4.7 The Railway (Interoperability) (Amendment) Regulations 2007 introduce changes introduced by the Directive (Directive 2007/32/EC) to the verification procedure where suitably qualified independent third parties (Notified Bodies) certify that elements of the trans-European rail system such as rolling stock, infrastructure and

signalling comply with appropriate standards. The regulations made on a UK-wide basis on 29th November 2007 will have limited immediate impact on Northern Ireland. Although the Interoperability Directives have been transposed in Northern Ireland for over five years, they only apply when a Contracting Entity (Northern Ireland Railways) undertakes a programme of works covered by the scope of the legislation. This has not happened to date. The Department was fully consulted on the development of the amending regulations and is content with the proposals. Northern Ireland Railways are aware of the revised procedures and will comply with them when carrying out works in the future to which the technical standards will apply.

Safety Authorisations

4.8 No updated, amended or part authorisations have been issued in this period. This is partly due to the fact that the Department continues to work closely with NIR on the development of their application for authorisation.

Procedural Issues

4.9 No specific procedural issues were raised by NIR during the period covered by this report. This is partly due to the fact that the Department continues to work closely with NIR on the development of their applications for certification and authorisation.

4.10 The main route for NIR to express opinion on issuing procedures and practice or to file complaints is through the ongoing contact between them and the Department.

The supervision of railway undertakings and infrastructure managers

5.1 In Northern Ireland, the day to day supervision of the health and safety performance of the railway industry is undertaken through the Railway Safety Management Regulations (Northern Ireland) 2006 where the Safety Authority is DRD

General

5.2 There are several industry initiatives underway that aim, among other things, to improve safety, including: awareness of hazards in the workplace; safety culture; and safety leadership and safety on the line. Other initiatives are in the early stages of delivery such as: communication; behaviours; competence assessment; and possessions

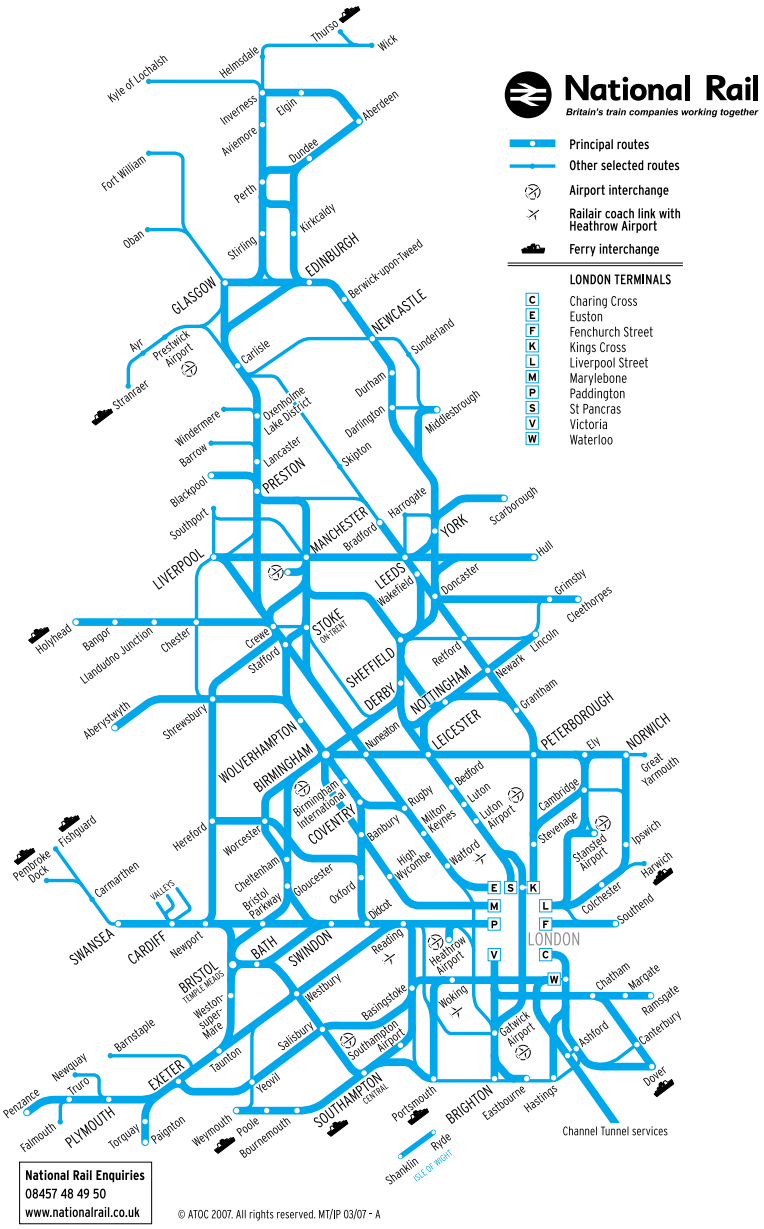
Conclusions

6.1 Northern Ireland has historically a low level of serious rail incidents. This situation has been maintained during 2007.

6.2 The Railway Safety Management Regulations (Northern Ireland) 2006 came into effect on 30th June 2006 and we will continue to work with NIR to ensure smooth implementation.

6.3 During 2008-09 we will continue to press for improved safety, performance and efficiency on the Northern Ireland railway network and we will take action on under-performance as necessary.

Annex A1


National Rail
Britain's train companies working together
Principal routes
Other selected routes
Airport interchange
Railair coach link with Heathrow Airport
Ferry interchange
LONDON TERMINALS
C Charing Cross
E Euston
F Fenchurch Street
K Kings Cross
L Liverpool Street
M Marylebone
P Paddington
S St Pancras
V Victoria
W Waterloo
Thurso
Wick
Kyle of Lochalsh
Helmsdale
Inverness
Elgin
Aberdeen
Aviemore
Dundee
Fort William
Perth
Oban
Kirkcaldy
Stirling
EDINBURGH
GLASGOW
Berwick-upon-Tweed
NEWCASTLE
Ayr
Prestwick Airport
Carlisle
Sunderland
Stranraer
Durham
Windermere
Oxenholme Lake District
Darlington
Middlesbrough
Barrow
Lancaster
Skipton
PRESTON
Blackpool
Harrogate
Southport
MANCHESTER
Bradford
YORK
Scarborough
LIVERPOOL
Hull
LEEDS
Wakefield
Doncaster
Grimsby
Cleethorpes
Holyhead
Bangor
Llandudno Junction
Chester
Crewe
STOKE ON TRENT
Retford
Lincoln
Stafford
SHEFFIELD
Newark
Aberystwyth
Shrewsbury
DERBY
NOTTINGHAM
Grantham
WOLVERHAMPTON
Nuneaton
LEICESTER
PETERBOROUGH
NORWICH
Ely
BIRMINGHAM
Great Yarmouth
Bedford
Rugby
Luton
Cambridge
Birmingham International
COVENTRY
Milton Keynes
Luton Airport
Stevenage
Banbury
Stansted Airport
Ipswich
Fishguard
Pembroke Dock
Hereford
Worcester
High Wycombe
Watford
Harwich
Carmarthen
Cheltenham
Gloucester
Oxford
Colchester
Bristol Parkway
Didcot
Southend
SWANSEA
CARDIFF
Newport
BATH
SWINDON
Reading
LONDON
Heathrow Airport
BRISTOL TEMPLE MEADS
Chatham
Margate
Westbury
Basingstoke
Woking
Ramsgate
Weston-super-Mare
Barnstaple
Salisbury
Gatwick Airport
Canterbury
Ashford
Newquay
Southampton Airport
EXETER
Taunton
Truro
Dover
Penzance
Teovil
SOUTHAMPTON CENTRAL
Portsmouth
BRIGHTON
Eastbourne
Hastings
Falmouth
PLYMOUTH
Torquay
Paignton
Weymouth
Poole
Bournemouth
Channel Tunnel services
Shanklin
Ryde
ISLE OF WIGHT
National Rail Enquiries
08457 48 49 50
www.nationalrail.co.uk
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Annex A2

List of railway undertakings and infrastructure managers in GB

Train operating companies			
Name	**Address**	**Website**	**Comments**
Arriva Trains Wales Ltd	St Mary's House 47 Penarth Road Cardiff CF10 5DJ	www.arrivatrainswales.co.uk	
Central Trains Ltd	Box 4323 Birmingham B2 4JB	www.centraltrains.co.uk	Service ceased 11 November 2007. Franchise split into Cross Country, East Midlands Trains and London Midland.
Chiltern Railway Company Ltd	Western House 14 Ricksford Hill Aylesbury Buckinghamshire HP20 2RX	www.chilternrailways.co.uk	
c2c Rail Ltd	Floor 11 207 Old Street London EC1V 9NR	www.c2c-online.co.uk	

Train operating companies

Name	Address	Website	Comments
Cross Country Trains Ltd	85 Smallbrook Queensway Birmingham B5HA	www.crosscountrytrains.co.uk	Service started 11 November 2007. Taken over the franchise from Central Trains and Virgin Trains Cross Country.
East Midlands Trains Ltd	Midland House Nelson Street Derby DE1 2SA	www.eastmidlandstrains.co.uk	Service started 11 November 2007. Taken over the franchise from Central Trains and Midland Mainline.
Eurostar (UK) Ltd	Times House Bavington Walk London N1 9AW	www.eurostar.com	
First Capital Connect Ltd	Hertford House 1 Cranwood Street London EC1V 9QS	www.firstcapitalconnect.co.uk	
First Great Western Ltd	Milford House 1 Milford Street Swindon Wiltshire SN1 1HL	www.firstgreatwestern.co.uk	
First Hull Trains Company Ltd	Premier House Ferensway Hull HU1 3UF	www.hulltrains.co.uk	
First ScotRail Ltd	Atrium Court 50 Waterloo Street Glasgow G2 6HQ	www.firstgroup.com/scotrail	
First/Keolis Transpennine Ltd	3rd Floor Macmillan House Paddington Station London W2 1FG	www.tpexpress.co.uk	
Gatwick Express Ltd	5th Floor Terminal House Grosvenor Gardens London SW1W 0AU	www.gatwickexpress.com	

Train operating companies

Name	Address	Website	Comments
Grand Central Railway Company Ltd	River House 17 Museum Street York YO1 7DG	www.grandcentralrail.co.uk	Service started 18 December 2007
Great North Eastern Railways Ltd	Main Headquarters Station Rise York YO1 6HT	www.gner.co.uk	Service ceased 8 December 2007. Franchise taken over by National Express East Coast.
Heathrow Express Operating Company Ltd	3rd Floor 30 Eastbourne Terrace Paddington London W2 6LE	www.heathrowexpress.com	
London Eastern Railway Ltd (T/A National Express East Anglia)	Floor 1 Oliver's Yard 55 City Road London EC1 1HQ	www.nationlexpresseastanglia.com	
London and Birmingham Railway Ltd (T/A London Midland)	PO Box 4323102 New Street Birmingham B2 4JB	www.londonmidland.com	Service started 11 November 2007. Taken over the franchise from Central Trains and Silverlink.
London Overground Rail Operations Ltd	Overground House 125 Finchley Road Swiss Cottage London NW8 6HY	www.lorol.co.uk	Service started 11 November 2007. Taken over the franchise from Silverlink (North London Lines)
Merseyrail Electrics (2002) Ltd	Rail House Lord Nelson Street Liverpool L1 1JF	www.merseyrail.org	
Midland Mainline Ltd	75 Davies Street London W1K 5HT	www.midlandmainline.com	Service ceased 11 November 2007. Franchise taken over by East Midlands Trains.
National Express East Coast Ltd	Main Headquarters Building Station Road York YO1 6HT	www.nationalexpresseastcoast.com	Service started 9 December 2007. Taken over the franchise from Great North Eastern Railway
Northern Rail Ltd	Northern House 9 Rougier Street York YO1 6HZ	www.northernrail.org	

Train operating companies

Name	Address	Website	Comments
Silverlink Trains Ltd	Floor 11 207 Old Street London EC1V 9NR	www.silverlink-trains.com	Service ceased 11 November 2007. Franchise split into London Midland and London Overground.
London and Southeastern Railway Ltd (T/A Southeastern)	Friars Bridge Court 41-45 Blackfriars Rd London SE1 8PG	www.southeasternrailway.co.uk	
Stagecoach South Western Trains Ltd (T/A South West Trains)	Friars Bridge Court 41-51 Blackfriars Road London SE1 8NZ	www.southwesttrains.co.uk	
New Southern Railway Ltd (T/A Southern)	Go-Ahead House 26-28 Addiscombe Road Croydon Surrey CR9 5GA	www.southernrailway.com	
Virgin Trains Cross Country Ltd	120 Campden Hill Road London W8 7AR	www.virgintrains.co.uk	Service ceased 11 November 2007. Franchise split into Cross Country, Virgin Trains West Coast and First Transpennine Express

Freight Operating companies

Name	Address	Website
Amey Infrastructure Services Ltd	Appleford Road Sutton Courtenay Abingdon Oxon OX14 4PP	
Freightliner PLC	3rd Floor The Podium 1 Eversholt Street London NW1 2FL	www.freightliner.co.uk
Freightliner Heavy Haul Ltd	3rd Floor The Podium 1 Eversholt Street London NW1 2FL	www.freightliner.co.uk
English Welsh and Scottish Railway Ltd	McBeath House 310 Goswell Road London EC1V 7LW	www.ews-railway.co.uk
GB Railfreight Ltd	15-25 Artillery Lane London E1 7HA	www.gbrailfreight.com
Advenza Freight Ltd	PO Box 22 Gloucestershire GL11 5YA	www.advenza.com
Direct Rail Services Ltd	Kingmoor Depot Etterby Road Carlisle CA3 9NZ	www.directrailservices.com

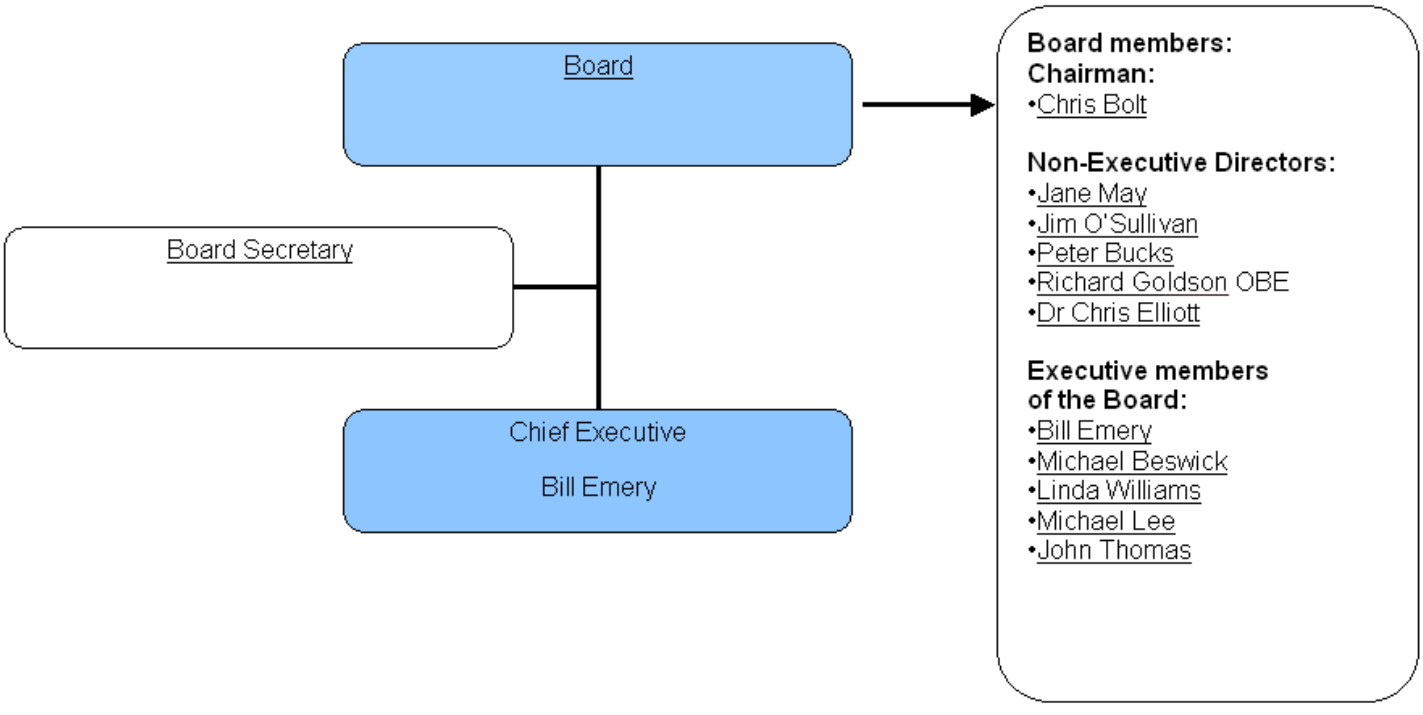
Infrastructure managers

Name	Address	Website
Network Rail (CTRL) Ltd	40 Melton Street London NW1 2EE	www.networkrail.co.uk
Network Rail Infrastructure Ltd	40 Melton Street London NW1 2EE	www.networkrail.co.uk

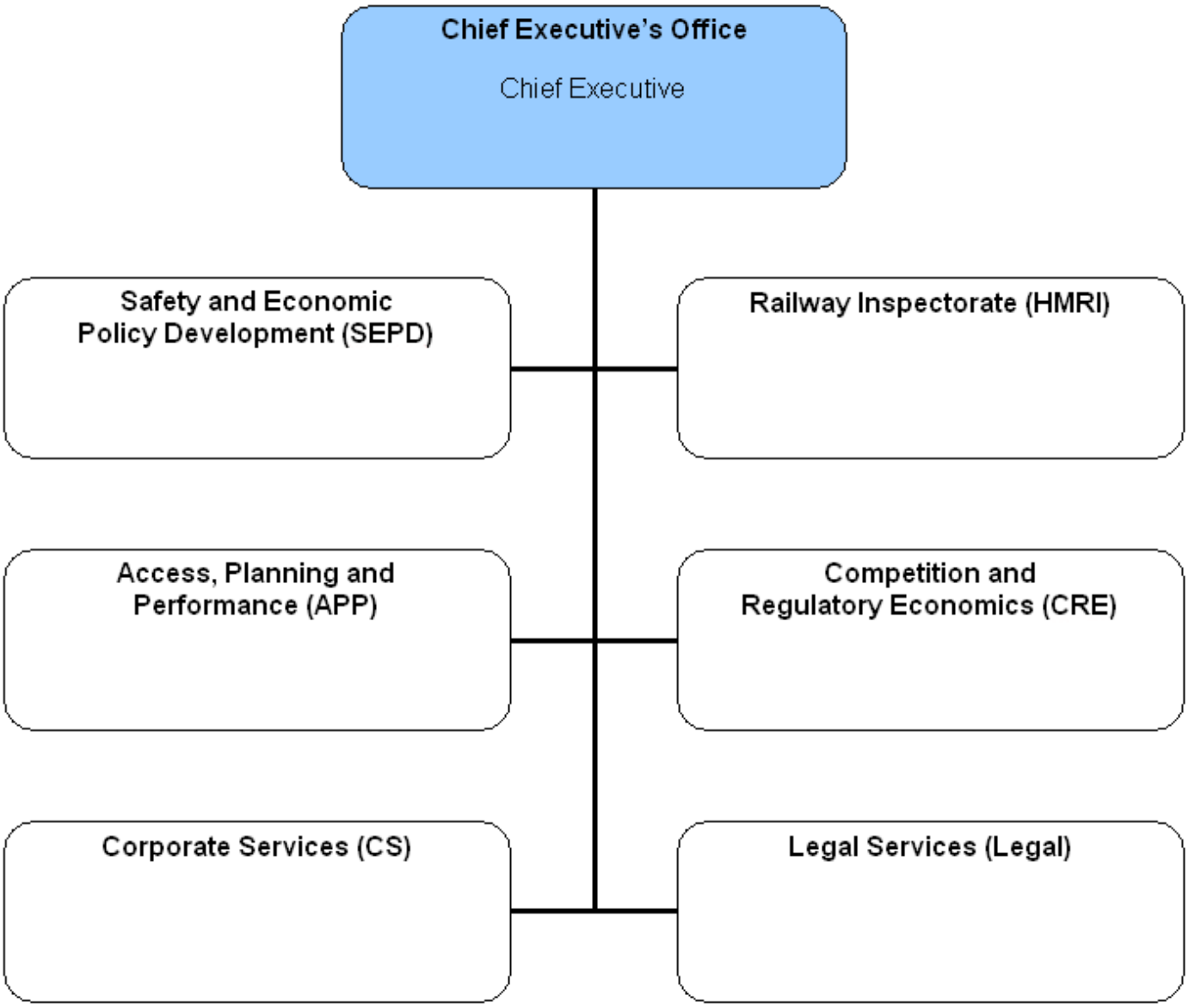
Contractors		
Name	**Address**	**Website**
Balfour Beatty Rail Plant Ltd	Manor Lane Hither Green London SE12 0UA	www.bbrail.com
Carillion Construction PLC	24 Birch Street Wolverhampton WV1 4HY	www.carillionplc.com
COLAS Rail Ltd (formerly AMEC SPIE)	Dacre House 19 Dacre Street London SW1 0DJ	www.colasrail.co.uk
First Engineering	3 Lister Way Hamilton International Park Blantyre Scotland G72 0UY	www.firstengineering.co.uk
Grant Rail Group Ltd	Lakeside 1 Carolina Way Doncaster South Yorkshire DN4 5RA	www.grantrail.co.uk
Harsco Track Technologies Ltd	Grove House Grove Road Northfleet Kent DA11 0AX	www.harscotrack.com
Jarvis Fastline Ltd	Meridian House The Crescent York YO24 1AW	www.fastline-group.com
Serco Ltd	Derwent House London Road Derby DE24 8UP	www.serco.com

Annex B1

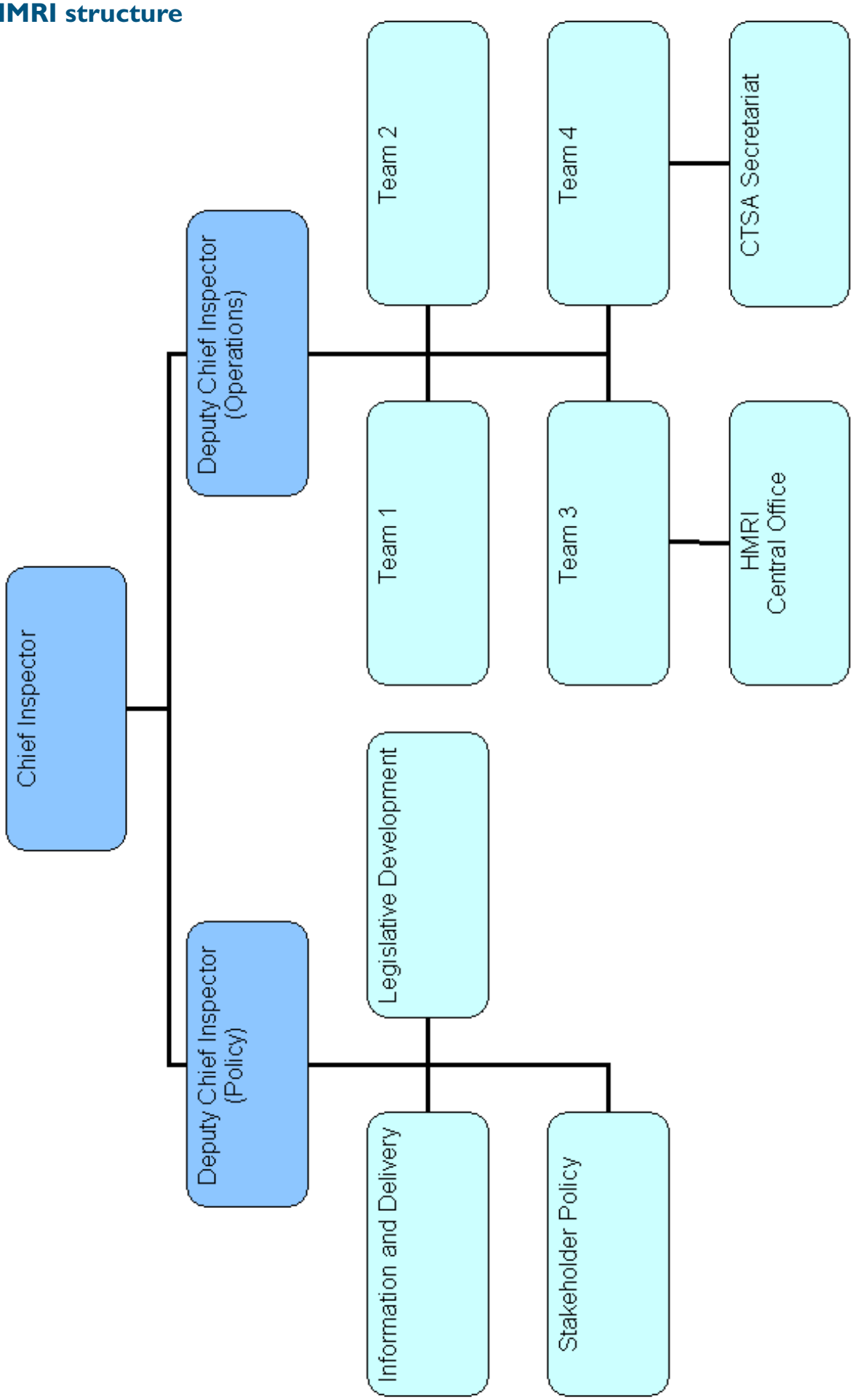
ORR structure



ORR directorate structure



HMRI structure



Operational team's responsibilities

Team 1	National Expertise Team – Railway Operations National Expertise Team – Level Crossings National Expertise Team – Control, Command and Signalling Account Manager for Network Rail
Team 2	Scotland Area Team London North East Area Team London North West AreaTeam London Midlands Area Team National Expertise Team – Rolling Stock Railway Companies Team
Team 3	National Expertise Team – Light Rail, Metro, Heritage National Expertise Team – Infrastructure and Energy Account Manager for London Underground Account Manager for contractors Technology foresight and metallurgy HMRI Central Office
Team 4	National Expertise Team – Human Factors, Risk and SMSs Sussex and Wessex Area Team Kent and Anglia Area Team Western Area Team Channel Tunnel Safety Authority Secretariat.

Area teams inspect the activities of duty holders operating within their geographical area. Each team is assigned a number of duty holders for whom an inspector acts as account holder, coordinating our work nationally with that company. This includes work on Safety Certificates and some technical initial integrity projects. Area teams also undertake reactive work in response to complaints and reported incidents. The area team manager determines which incidents will be investigated and where appropriate, coordinates input to investigation by colleagues elsewhere in HMRI, e.g. national expertise teams.

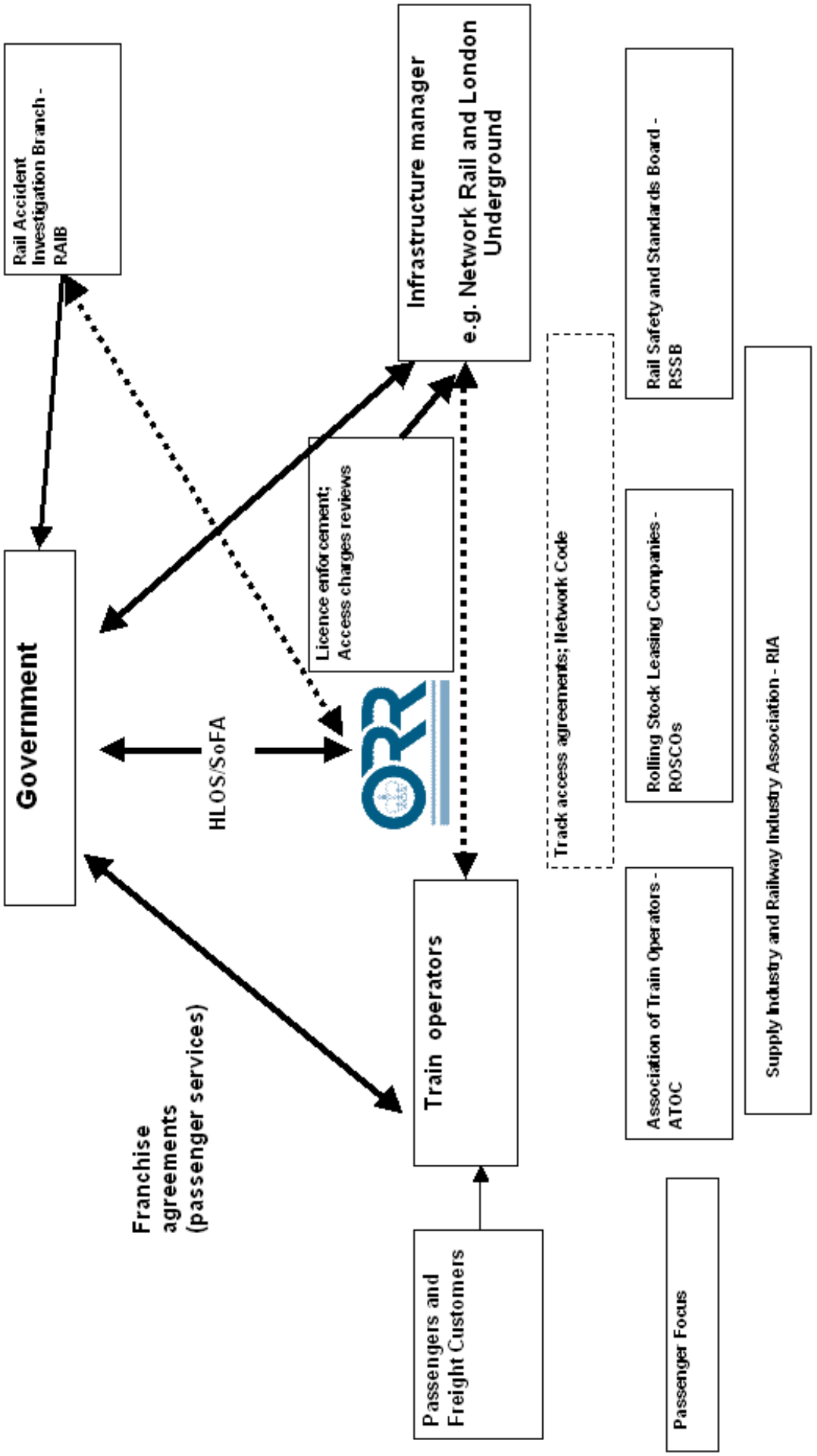
National expertise teams provide advice, guidance and detailed technical within their specific areas.

Policy team's responsibilities

Legislative Development Team	Operational policy Generic and rail specific legislative development Interoperability and standards
Stakeholder policy Team	Rail Accident Investigation Branch policy Government and non-government stakeholder engagement Support to major incident investigations Enforcement policy and allocation
Information and Delivery Team	Topic strategies Information and intelligence Process management Legal support Rail Accident Investigation Branch recommendation handling process.

Annex B2

Regulatory Structure in Great Britain



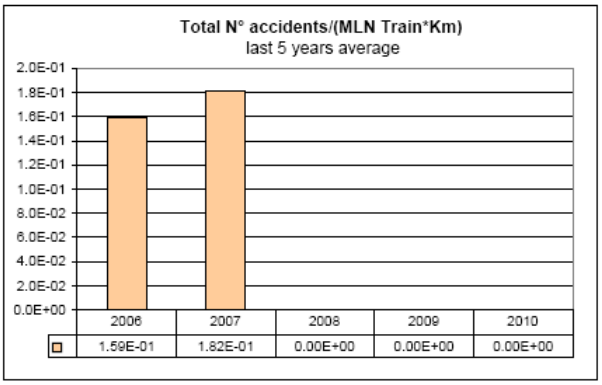
HLOS and SoFA are how government indicates what it expects the rail industry to do, given the available funding. HLOS = 'High Level Output Specifications' and SoFA = 'Statement of Funds Available'.

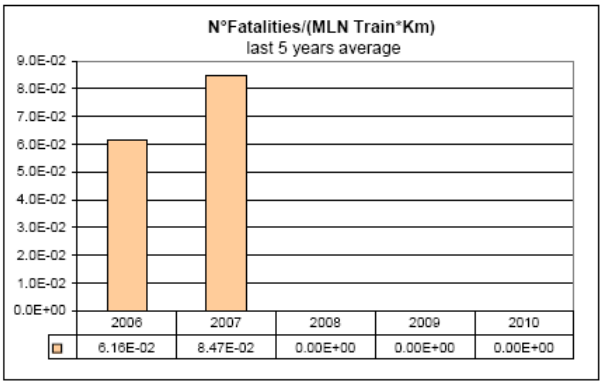
Annex C

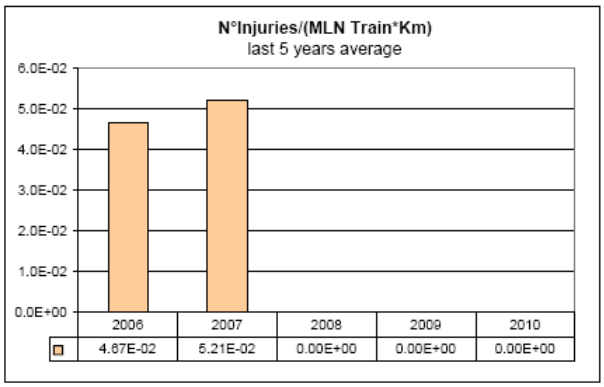
Common Safety Indicator data

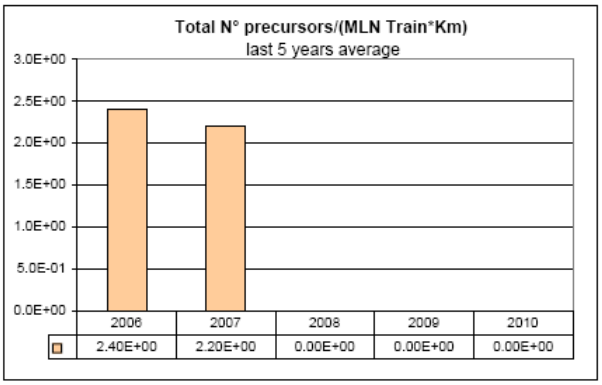
Chart 1 CSI's data

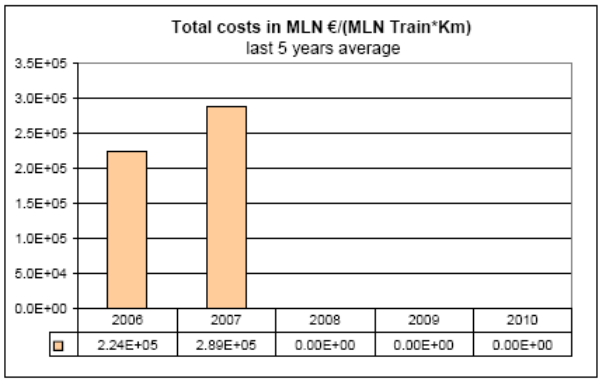
Performances at a glance





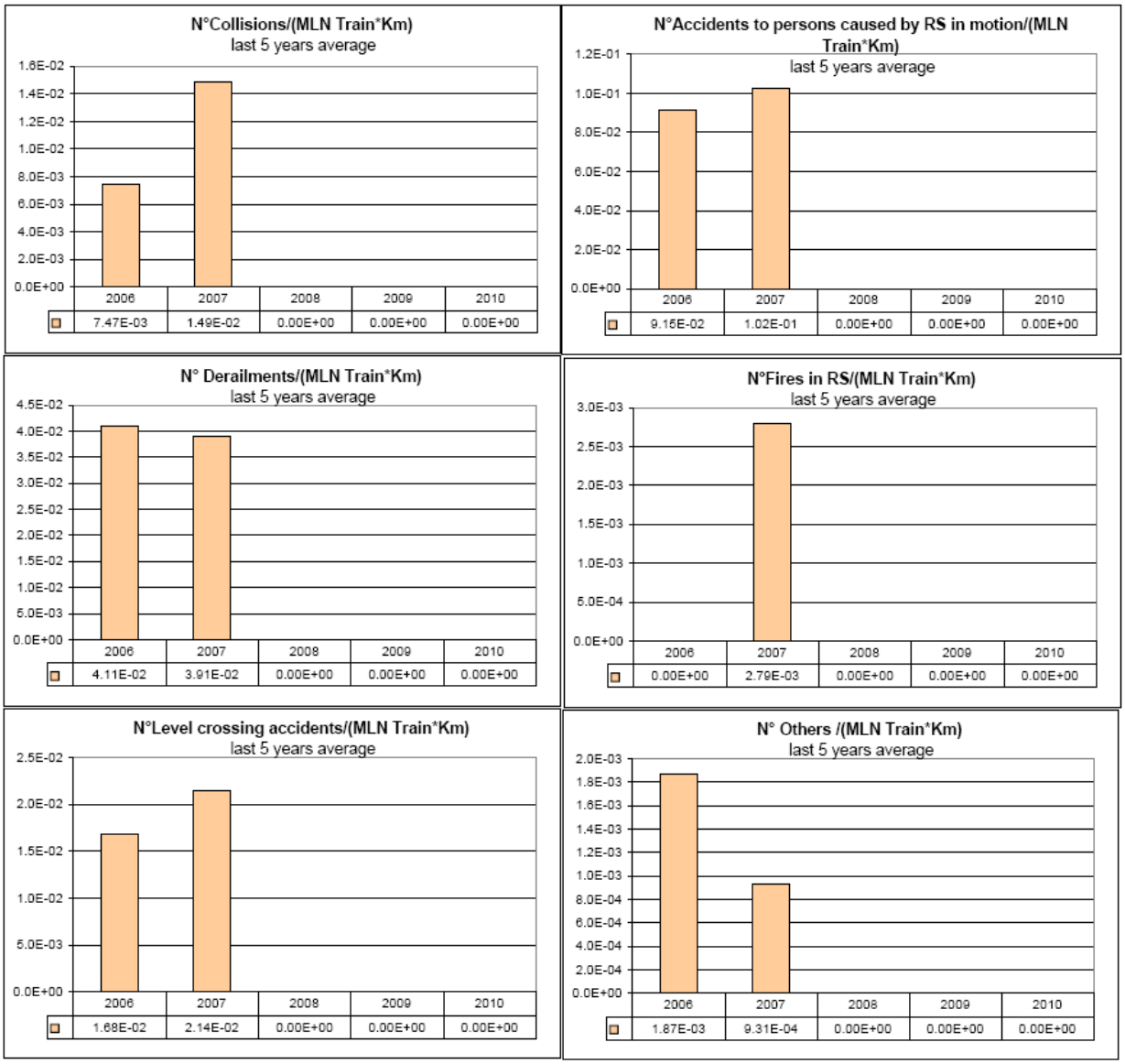






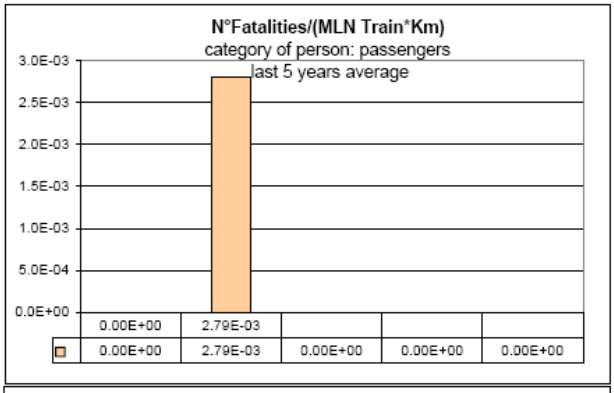
2007 report: values related to 2006.
2008 report: values related to the average between 2006 and 2007.
2009 report: values related to the average among 2006, 2007 and 2008.
2010 report: values related to the average among 2006, 2007, 2008 and 2009.

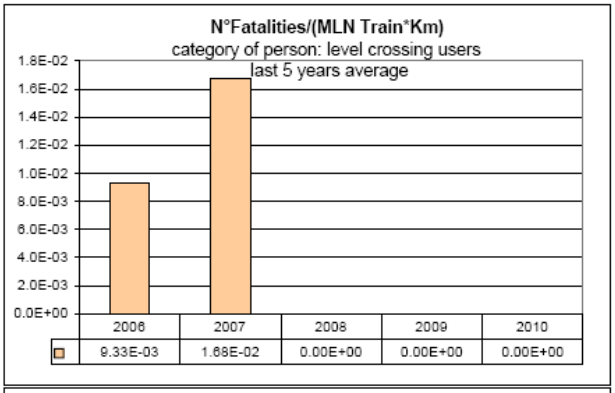
Accidents divided by type

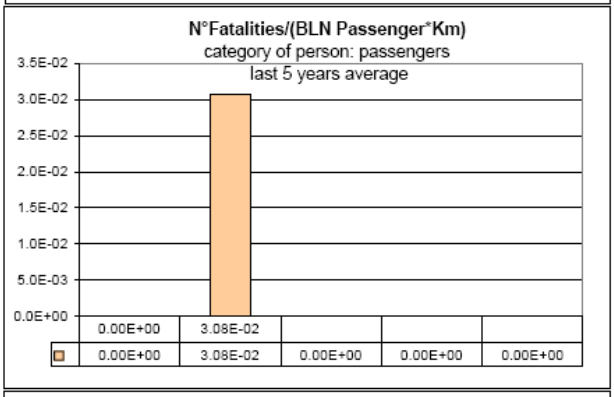


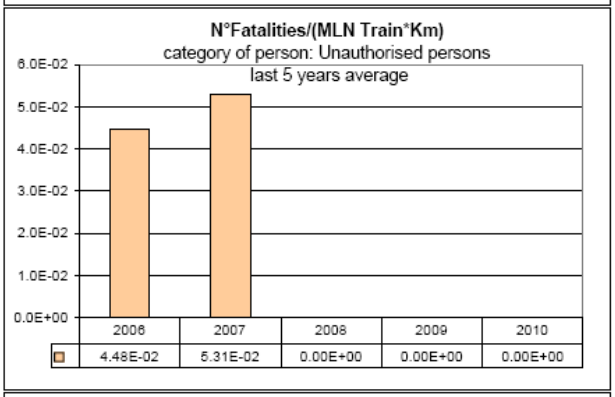
2007 report: values related to 2006.
2008 report: values related to the average between 2006 and 2007.
2009 report: values related to the average among 2006, 2007 and 2008.
2010 report: values related to the average among 2006, 2007, 2008 and 2009.

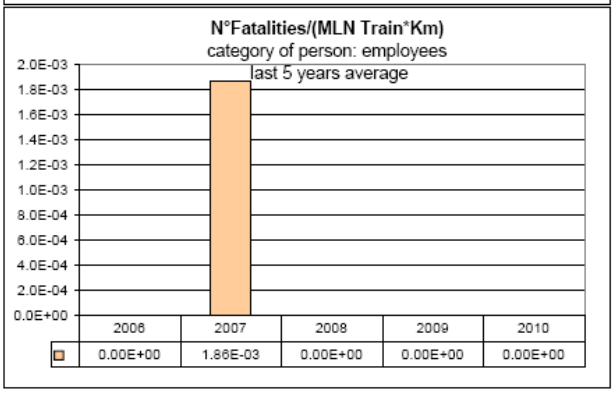
Fatalities divided by category of people involved

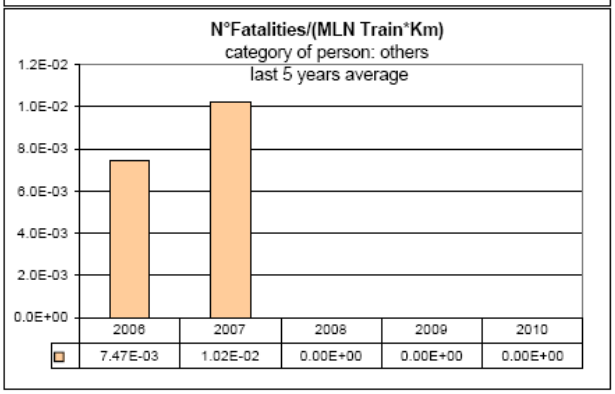






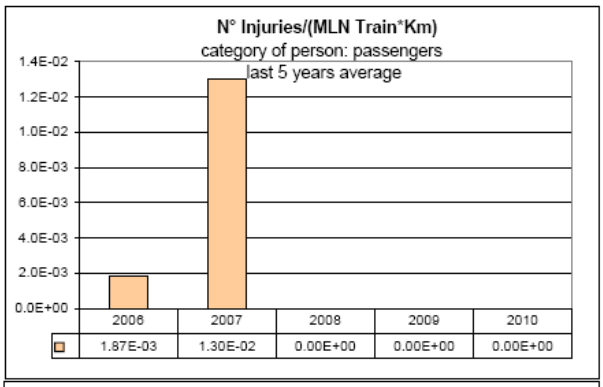


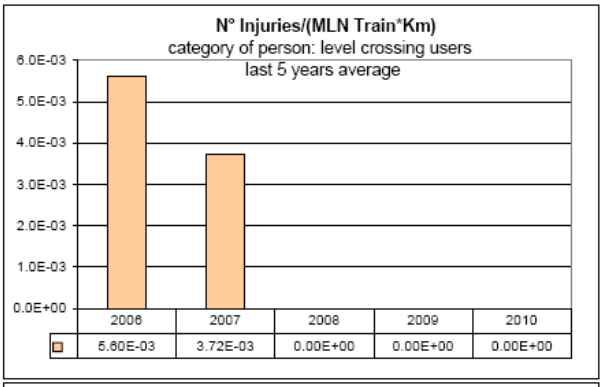


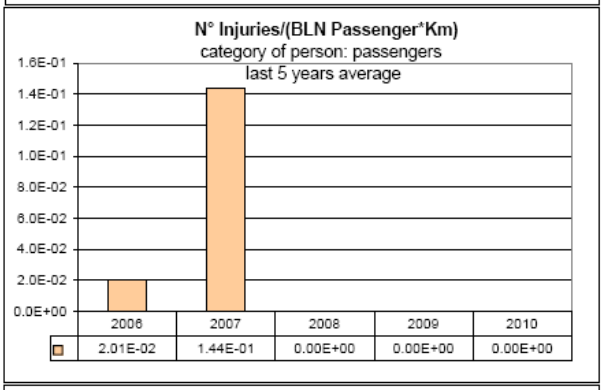


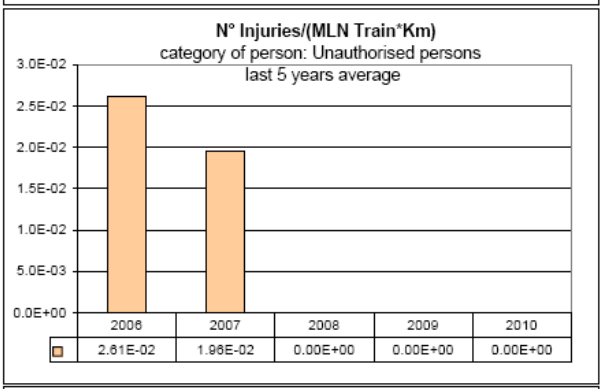
2007 report: values related to 2006.
2008 report: values related to the average between 2006 and 2007.
2009 report: values related to the average among 2006, 2007 and 2008.
2010 report: values related to the average among 2006, 2007, 2008 and 2009.

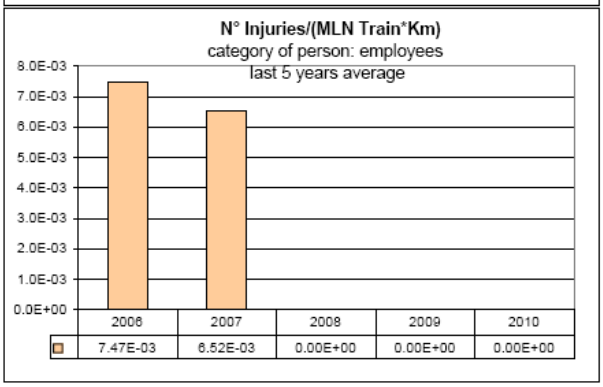
Injuries divided by category of people involved

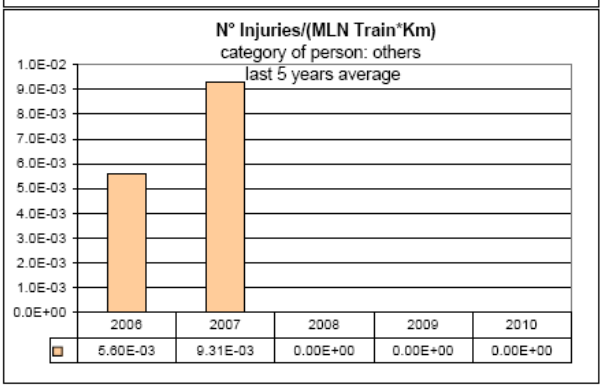






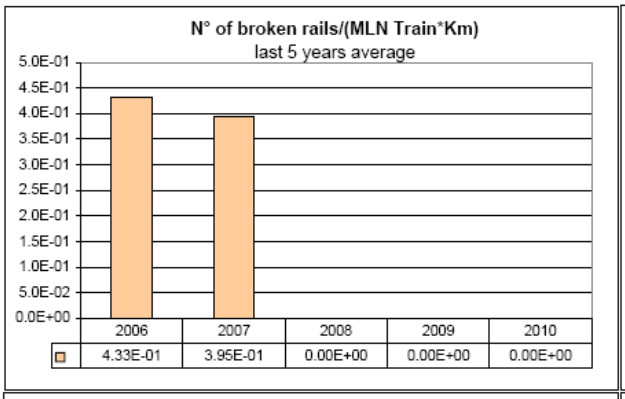


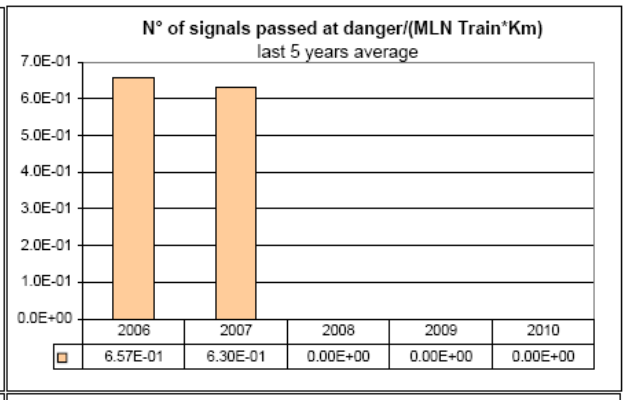


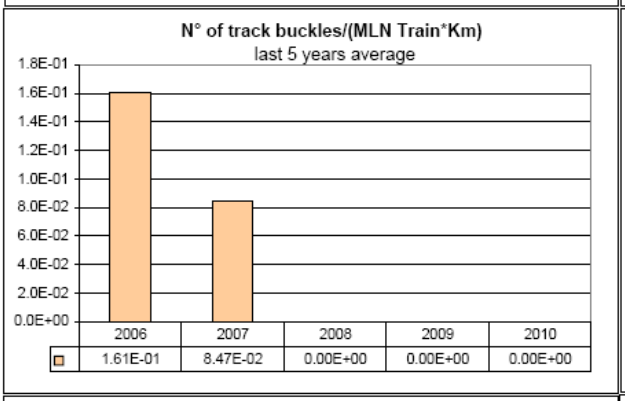


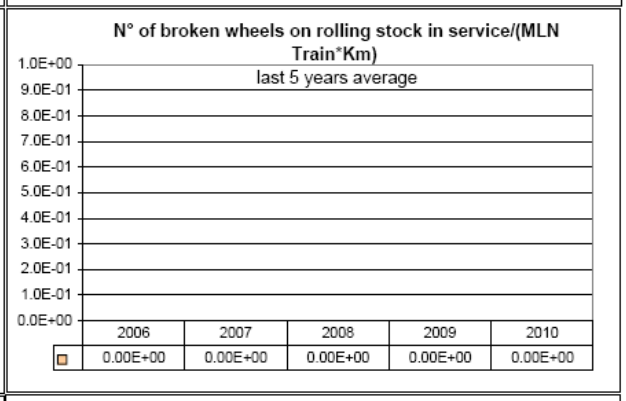
2007 report: values related to 2006.
2008 report: values related to the average between 2006 and 2007.
2009 report: values related to the average among 2006, 2007 and 2008.
2010 report: values related to the average among 2006, 2007, 2008 and 2009.

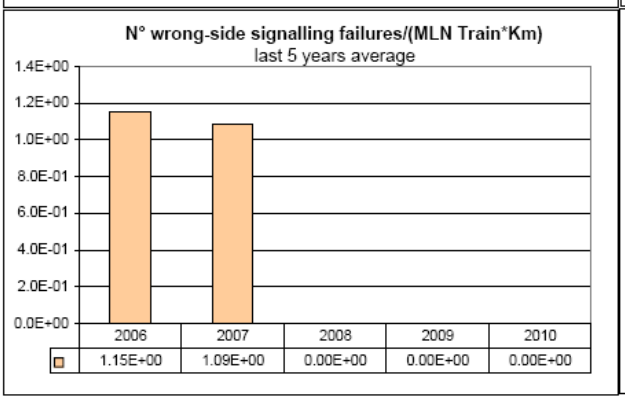
Precursors to accidents

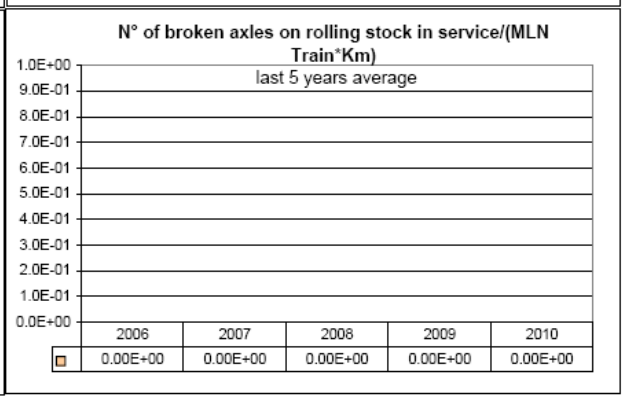












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2008 report: values related to the average between 2006 and 2007.
2009 report: values related to the average among 2006, 2007 and 2008.
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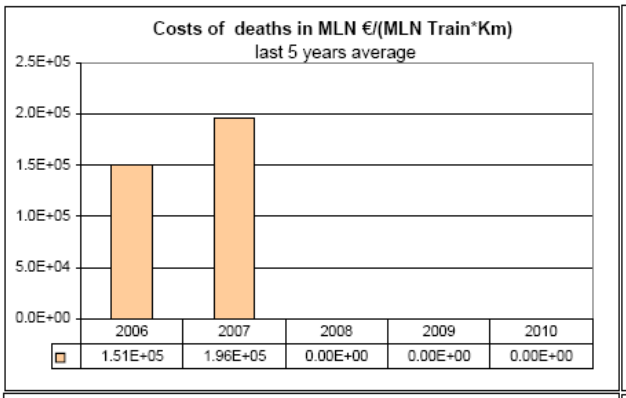
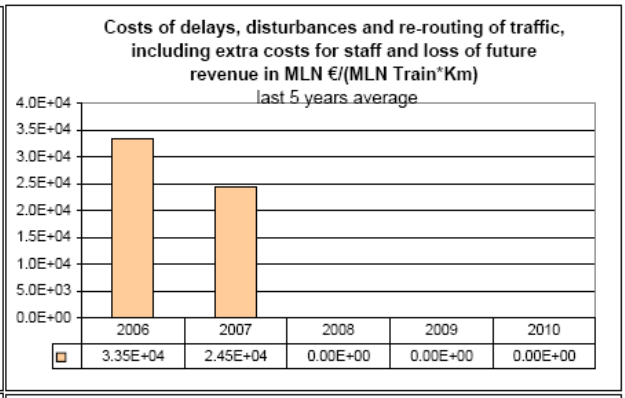
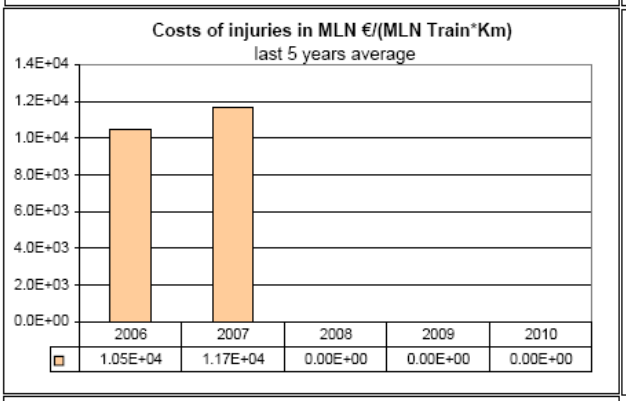
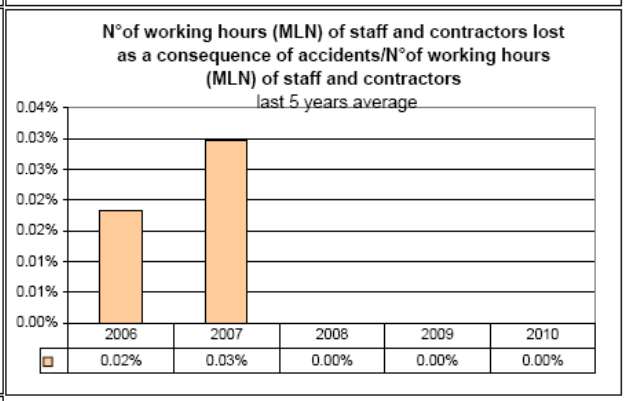
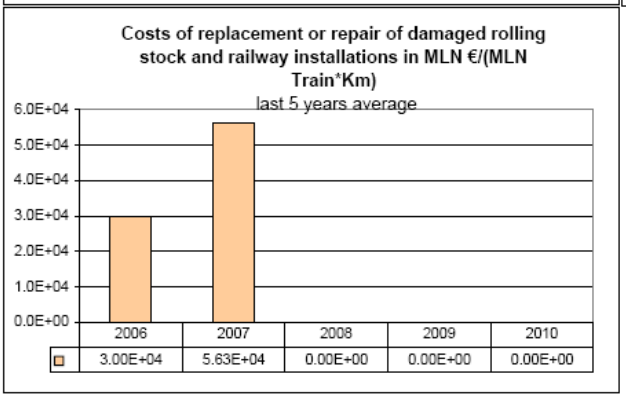
Cost of all accidents, number of working hours of staff and contractors lost as a consequence of accidemts











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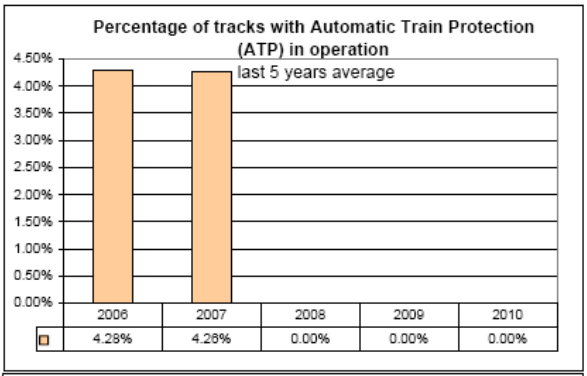
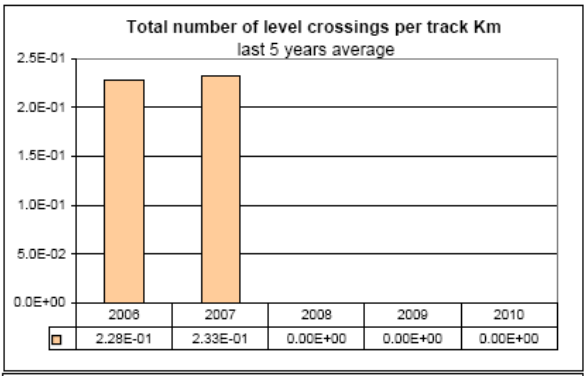
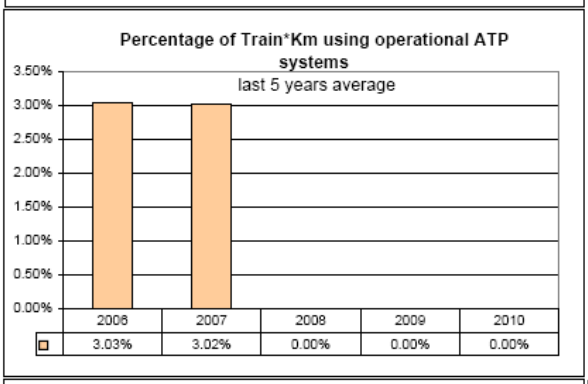
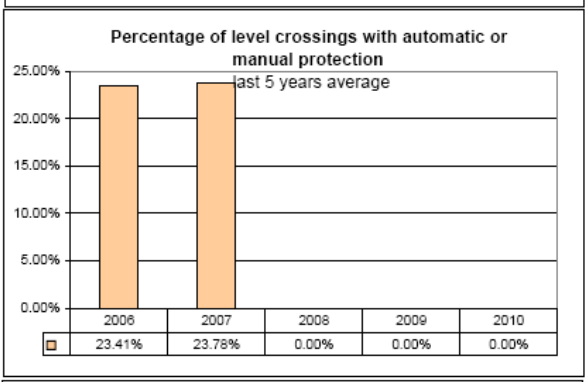
2009 report: values related to the average among 2006, 2007 and 2008.
2010 report: values related to the average among 2006, 2007, 2008 and 2009.

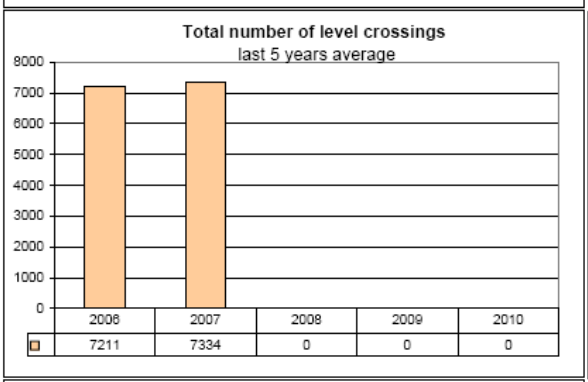
Technical safety of infrastructure and its implementation, management of safety

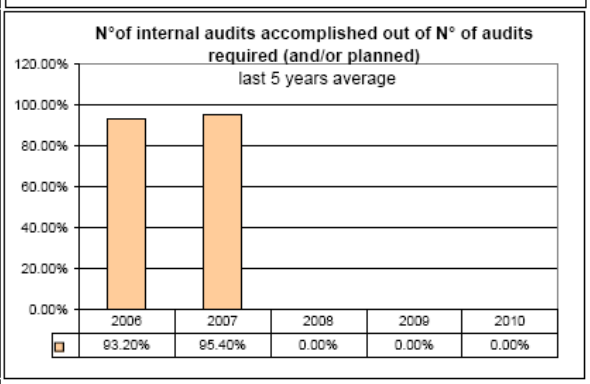


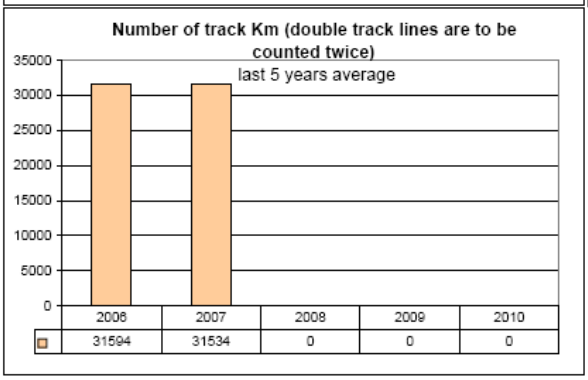












2007 report: values related to 2006.
2008 report: values related to the average between 2006 and 2007.
2009 report: values related to the average among 2006, 2007 and 2008.
2010 report: values related to the average among 2006, 2007, 2008 and 2009.

Annex D

Development of safety certification and authorisation numerical data in Great Britain

		New	Updated / amended	Renewed
Number of valid Safety Certificates Part A held by Railway Undertakings in the year 2007 being registered	in your Member State	35	2	
	in another Member State			

		New	Updated / amended	Renewed
Number of valid Safety Certificates Part B held by Railway Undertakings in the year 2007 being registered	in your Member State	35	2	
	in another Member State			

			A	R	P
Number of applications for Safety Certificates Part A submitted by Railway Undertakings in year 2007 being registered	in your Member State	new certificates	16		3
		updated / amended certificates	2		
		renewed certificates			
	in another Member State	new certificates			
		updated / amended certificates			
		renewed certificates			

			A	R	P
Number of applications for Safety Certificates Part B submitted by Railway Undertakings in year 2007 being registered	in your Member State	new certificates	17		3
		updated / amended certificates	2		
		renewed certificates			
	in another Member State	new certificates	1		
		updated / amended certificates			
		renewed certificates			

A = Accepted application, certificate is already issued
R = Rejected applications, no certificate was issued
P = Case is still pending, no certificate was issued so far

	New	Updated / amended	Renewed
E.3.1. Number of valid Safety Authorisations held by Infrastructure Managers in the year 2007 being registered in your Member State	14		

		A	R	P
E.3.2. Number of applications for Safety Authorisations submitted by Infrastructure Managers in year 2007 being registered in your Member State	new authorisations	8		
	updated / amended authorisations			
	renewed authorisations			

A = Accepted application, certificate is already issued
R = Rejected applications, no certificate was issued
P = Case is still pending, no certificate was issued so far

Please note we do not record the mean time for assessment of safety certificate/ authorisations applications and therefore are unable to provide this information.

Annex E

Network map of Northern Ireland