SAFETY PERFORMANCE REPORT LATVIA 2012

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1. Introduction

This report was prepared by the State Railway Technical Inspectorate pursuant to Article 57 of the Cabinet of Ministers Regulation No 999 of 26.10.2010, 'Procedures for the Classification, Investigation and Recording of Railway Traffic Accidents', with the aim to present information about the level of traffic safety and railway transport processes.

The report presents a compilation of data on traffic safety improvements, and an analysis of safety indicators and the enforcement of safety procedures by the State Railway Technical Inspectorate. The report contains the following information:

- Railway traffic safety trends;
- Monitoring and cooperation structure;
- Railway safety performance analysis;
- Changes in legislation;
- Monitoring procedures;
- Assessment of the State Railway Technical Inspectorate's performance.

The following information sources were used in preparing the report:

- Registers of the State Railway Technical Inspectorate;
- State Railway Technical Inspectorate's Operation Strategy for 2007-2013 (1 January 2006);
- <u>Transport Development Guidelines for 2007-2013</u> (endorsed by the Cabinet of Ministers Decree No 518 of 12 July 2006, amended by the Cabinet of Ministers Decree No 140 of 10 March 2010);

• Transport in 2013. Compilation of statistical data. (Central Statistical Bureau of the Republic of Latvia, Riga, 2013);

• State Joint Stock Company a/s Latvijas dzelzceļš Basic Performance Indicators. Year 2012. (Riga, 2013);

• Safety Performance Report of State Joint Stock Company a/s Latvijas dzelzceļš. Year 2012. (Riga, 2013);

• 2012 Safety Performance Report of SIA LDZ CARGO (Riga, 2013);

• Safety Performance Report of Joint Stock Company Baltijas Ekspresis. Year 2012. (Ventspils, 2013);

- 2012 Safety Performance Report of SIA Gulbenes-Alūksnes bānītis (Gulbene, 2013);
- 2012 Safety Performance Report of a/s Pasažieru vilciens (Riga, 2013);
- 2012 SAFETY PERFORMANCE REPORT OF A/S BALTIJAS TRANZITA SERVISS (Riga, 2013);
- 2012 Annual Report of the State Railway Technical Inspectorate (Riga, 2013);
- 2012 Annual Report of the State Railway Administration (Riga, 2013).

The State Railway Technical Inspectorate has to ensure that there are uniform and safe railway operation requirements for all entrepreneurs and enterprises working in rail transport, via:

- uniform principles of certification for entrepreneurs working in rail transport;
- uniform principles of certification for railway specialists;
- uniform requirements on the assessment of railway facility construction projects;
- uniform requirements on the acceptance of rolling stock for placing in service;
- uniform requirements on the putting into service of railway structural subsystems;
- uniform requirements on the technical operation of railways;
- uniform requirements on the organisation of investigations of railway traffic accidents.

2. Summary

The growth of the Latvian railway freight market in 2012 slightly increased on the market's rapid development in 2011, amounting to a total of 2.0% (per 380,000 train-kilometres)¹. Total freight turnover in the review period was 21,867 million tonne-kilometres,² compared to 21,410 million tonne-kilometres in 2011 and 17,178.4 million tonne-kilometres in 2010. Passenger turnover continued to decrease in 2012, down 4% from 733 million passenger-kilometres in 2011 to 717 million passenger-kilometres in 2012. On the other hand, international passenger transport volume has been increasing from 2010 (on average by 3% to 4% annually). The decrease in passenger turnover is due to reduced subsidies for domestic passenger transport.

Regardless of the increasing transport volumes, the number of serious railway accidents in the review period reduced by 28% from 2011. The number of serious accidents continues to decrease; since 2004, the number of serious accidents has fallen by 50% or half. The number of accidents to persons caused by rolling stock in motion has also reduced. However, accidents to persons caused by rolling stock in motion still represent the majority of accidents. The number of fatalities increased in the review period. On average, there were 1.03 seriously injured persons per fatality in Latvia.

Year	Casualties (total number)	Train-kilometres	Relative indicator
2006	63	17122200	3,530E-06
2007	45	18578000	2,422E-06
2008	60	19525000	3,073E-06
2009	29	18726000	1,55E-06
2010	37	16626000	2,23E-06
2011	34	18471000	1,84E-06
2012	26	18851000	1,321E-06

In terms of data per train-kilometre, the proportion of casualties has been decreasing for several years.

Also in 2012, risk assessments were performed to appraise the threat to human health and the environment posed by railway infrastructure³. The risk assessments include descriptions of railway sections and junctions, analysis of accident statistics, data on train traffic intensity, transport modes, and implemented traffic safety measures. As a result of risk assessment, railway stations and stops, level crossings and railway sections are assigned certain risk levels, the main risk factors are described, and recommendations are offered to reduce the risks. In 2012, risk assessments were performed for two railway infrastructure sectors. Work continues on the development of preventive safety measures in order to reduce risks involving the transport of dangerous goods.

During the reporting year, 94 railway undertakings were inspected to ensure monitoring as per the functions provided in the Railway Law. One Part B safety certificate and seventy safety permits were issued to undertakings operating in the railway industry. As part of railway specialist certification procedures,

¹2012 Annual Public Report of the State Railway Administration

² Transport in 2013. Compilation of statistical data.

³2012 Annual Public Report of the State Railway Administration

149 traction vehicle drivers, 144 assistant drivers and sixteen driver instructors were certified, as well as 28 safety consultants responsible for the transport of dangerous goods and 145 railway specialists – members of railway companies' specialist certification committees. Thirty-eight cases of railway safety violations were investigated. Seven new types of rolling stock were issued operating permits, and 807 rolling stock units and 98 railway infrastructure facilities were accepted into service. Three draft designs and 52 construction projects were also authorised, 37 construction permits were issued and the validity of 26 construction permits was prolonged.

3. Summary in English

This report has been prepared by the State Railway Technical Inspectorate in accordance with Article 57 of the Cabinet Regulations of 26 October 2010 No 999 'Procedures for the Classification, Investigation and Recording of Railway Traffic Accidents', and its aim is to provide information on traffic safety level and on processes in railway traffic. The report contains summarised information about traffic safety development processes, safety indicators analysis and the provision of safety procedures by the State Railway Technical Inspectorate. The report contains the following information:

- traffic safety tendencies;
- structure of supervision and cooperation;
- assessment of traffic safety situation;
- amendments in laws;
- supervision processes;
- evaluation of activities of the State Railway Technical Inspectorate.

In 2012 the freight transport market showed total growth by 2.0% (increase of 380 000 train km)⁴ thereby slightly exceeding the rapid growth level of 2011. In the reporting year the total freight turnover was 21 867 mio. ton km⁵. For comparison, in 2011 freight turnover was 21 410 mio ton km and in 2010 – 17 178.4 mio ton km respectively. Passenger traffic in 2012 has decreased by 4% (from 733 mio passenger km in 2011) to 717 mio passenger km in 2012). Since 2010 the volume of international passenger traffic has been continuously increasing (in average by 3-4% annually). The reason for the decrease in passenger transport volume is the reduction of subsidies for local passenger transport.

In the reporting year, the number of serious accidents has decreased while the total traffic volume is increasing. In relation to 2011, the reduction is 28%. The number of serious accidents also has the tendency to decrease. Decrease in relation to 2004 is 50%, it means the number of serious accidents has decreased by half. The number of accidents during train movement leading to injuries to persons also has declined. However the majority of all accidents are accidents during train movement leading to injuries to persons have been seriously injured relative to one fatality. Analysing data comparing to train km volume, it can be seen that the proportion of injured persons is going to decrease.

In 2012 risk assessment has been provided for railway infrastructure objects which could cause a

⁴ 2012 annual public report of the State Railway Administration

⁵Transport 2013. Statistical data collection.

hazard to human health and environment⁶. The risk assessment comprises the description of a railway junction and railway section, analysis of accident statistics, information about train traffic intensity, transport types and performed traffic safety measures. As a result of the risk analysis a risk level for each station, train stop, level crossing and railway section has been determined, the main risk factors are given and recommendations for decreasing risk levels are carried out. In 2012 the risk assessment was performed for two railway infrastructure sections. In order to reduce the risks related to the transport of dangerous freight, preventive safety measures are being carried out.

Within the scope of its functions determined by the Railway Law, the Inspectorate has supervised the examination of 94 railway undertakings. One safety certificate's part B and 70 safety certificates for railway sector undertakings were issued. Within the framework of certification procedure, 149 train drivers, 144 train driver assistants and 16 train driver instructors, as well as 28 safety consultants on dangerous goods deliveries and 145 railway sector experts – commission members for attestation specialists of railway undertakings were certified. Thirty-eight railway traffic safety breaches were investigated. Operation permits were issued to 7 new rolling stock types, 807 rolling stock units and 98 railway infrastructure facilities were taken into operation. 3 draft designs and 52 construction designs were evaluated and approved, 37 working permits were issued and 26 working permits were prolonged.

4. Railway sector in Latvia

4.1. Railway infrastructure

Altogether, 404 privately owned railway sections with a total length of 662.19 km and 355 public railway sections with a total length of 3,246.29 km were registered with the State Register as of 31 December 2012. The total length of railways registered in Latvia is 3,908.48 km, of which 17% are private railways and 83% are public railways⁷.

Indices	2009	2010	2011	2012
Total expanded length of railways, km	3,996.00	3,995.08	3,997.7	3,908.48
Public railways, km, including	3,315.52	3,324.98	3,323.2	3,246.29
Mainlines, km, of which	2,241.10	2,237.00	2,238.9	2,160.9
Double and more track railways, km	305.40	319.50	316.2	316.2
Electrified railways, km	647.90	647.90	647.90	626.0
Privately owned railways, km	680.47	670.10	674.5	662.19
Length of public mainline routes, km	1,850.8	1,896.90	1,864.7	1,859.2
Length of electrified railway routes, km	257.40	257.40	257.40	249.8

1,224.2 km of public railway infrastructure feature the continuous automatic train signalling system (ALSN).

⁶ 2012 Annual Public Report of the State Railway Administration

⁷ 2012 Annual Public Report of the State Railway Administration

Several measures were implemented in public railway infrastructure in 2012 in order to improve traffic safety⁸:

- Modernisation of automated railway traffic management systems of the railway corridor;
- Modernisation of electrification equipment, microprocessor centralisation and signalisation system;
- Reconstruction of 23.81 km of railway track;
- Complete overhaul of 57.16 km of railway tracks type A and B;
- Grinding of 216 km of rails in total;
- Repairs to and modernisation of 23 level crossings;
- Construction of fences at railway stations;
- Reconstruction and modernisation of pedestrian crossings.

4.2. Undertakings

In 2012 there were six undertakings in Latvia, which, in accordance with the relevant safety regulations, had the right to provide railway transport services using the public railway infrastructure:

Freight and passenger transport

2.1.1. Limited Liability Company SIA LDZ Cargo – inland and international freight transport, shunting operations, international passenger transport;

2.1.2. Joint Stock Company a/s Lietuvos geležinkeliai – inland and international freight transport, shunting operations, international passenger transport.

2.2. Freight transport

2.2.1. Joint Stock Company a/s Baltijas Ekspresis – inland freight transport, shunting operations;

2.2.2. Joint Stock Company a/s BALTIJAS TRANZĪTA SERVISS – inland freight transport, shunting operations.

2.3. Passenger transport

2.3.1. Limited Liability Company SIA Gulbenes-Alūksnes bānītis (narrow gauge railway) – inland transport;

2.3.2. Joint Stock Company a/s Pasažieru vilciens – inland transport.

Freight transport services constitute a major part of railway services in Latvia. The highest volume of transport service is provided by SIA LDZ Cargo (approximately 77.4% of freight transport volume). The remaining services are provided by a/s BALTIJAS TRANZĪTA SERVISS and a/s Baltijas Ekspresis. 90% of inland passenger transport services in Latvia are provided by a/s Pasažieru vilciens. SIA LDZ Cargo provides international passenger transport services.

5. State control

5.1. Monitoring and cooperation structure

The Ministry of Transport is the main government body responsible for the transport and communications sector; it develops the regulatory framework and policy planning documents for the sector, and enforces the implementation of its policies via public administration institutions responsible to the

⁸Safety Performance Report of State Joint Stock Company a/s Latvijas dzelzceļš. Year 2012.

State governance in the field of railway transport is exercised by the State Railway Technical Inspectorate, the State Railway Administration, and the Transport Accident and Incident Investigation Bureau.

The Transport Accident and Incident Investigation Bureau (hereinafter – Investigation Bureau) is responsible for investigating serious accidents involving trains and shunting services that affect traffic safety, taking into account the gravity of the consequences thereof. The Investigation Bureau informs the State Railway Technical Inspectorate about the process of investigation. Following the investigation, the Investigation Bureau submits the final report to the State Railway Technical Inspectorate. In order to prevent the causes and circumstances of a serious railway accident or a significant accident, as well as to guarantee railway traffic safety, the Investigation Bureau formulates safety recommendations based on the conclusions drawn during investigations. The State Railway Technical Inspectorate also evaluates whether it is necessary to widen the circle of final implementers of safety recommendations and, if necessary, also sends safety recommendations to other companies in the railway sector. The Inspectorate informs the Investigation Bureau about the implementation of safety recommendations to other companies in the railway sector. The Inspectorate informs the Investigation Bureau about the implementation of safety recommendations.

The State Railway Administration is responsible for issuing licences to freight transport undertakings, adjudicating conflicts among undertakings and infrastructure managers, shaping the strategy of environmental policy, and risk assessment. The State Railway Administration is responsible for the maintenance of registers of State-owned infrastructure and rolling stock. The Inspectorate's cooperation with the Administration is implemented within the framework of registers of infrastructure and rolling stock. The Inspectorate uses the registers for the enforcement of supervision. The State Railway Technical Inspectorate informs the State Railway Administration about prohibitions on the operation of rolling stock and about rolling stock operation permits.

The subordination structure has remained unchanged since 2007.

5.2. State Railway Technical Inspectorate

The State Railway Technical Inspectorate monitors and supervises the technical operation of railways. The State Railway Technical Inspectorate is responsible to the Ministry of Transport, which supervises the work of the Inspectorate. The Inspectorate was established on 1 July 1999, with view to perform the functions of State control in the field of monitoring and supervision of the technical operation of railways. The work of the Inspectorate is governed by the Cabinet of Ministers Regulation No 14 of 4 January 2005, '<u>Regulations Regarding the State Railway Technical Inspectorate</u>'. The State Railway Technical Inspectorate is headed by its Director.

The main functions of the State Railway Technical Inspectorate are provided in Section 33 of the Railway Law as follows:

• to monitor the observance of regulatory enactments in the field of railway operation and safety, as well as of other regulatory enactments;

• to monitor the implementation of civil defence measures (including preventive and response measures and the mitigation of consequences) in railway operation;

• to investigate railway accidents and maintain a register thereof;

• to assess railway infrastructure projects and to take decisions regarding these projects; to issue construction permits; and to control the observance of provisions of law and other regulatory enactments in the construction sector on the part of entities involved in railway infrastructure construction;

- to issue safety certificates to undertakings in accordance with regulatory enactments;
- to issue safety permits in accordance with the specified procedure;

• to issue professional competence certificates in the regulated spheres in accordance with regulatory enactments;

• to exchange information about the principles and practice of the Inspectorate's work and decisions with the relevant authorities of other European Union Member States;

- to issue traction vehicle driver's (train driver's) licences;
- to maintain a register of traction vehicle driver's (train driver's) licences;
- to take decisions on the acceptance of rolling stock for placing in service.

New and updated responsibilities were delegated to the State Railway Technical Inspectorate in 2012 by several new and amended regulations:

	Regulation	Responsibilities
1.	Cabinet of Ministers Regulation No 349 of 22.05.2012, 'Amendments to the Cabinet of Ministers Regulation No 360 of 2 May 2006, 'Regulations on Railway Specialists''	Organisation of written examinations of railway specialists (new responsibility)
2.	Cabinet of Ministers Regulation No 401 of 12.06.2012, 'Amendments to the Cabinet of Ministers Regulation No 1211 of 28 December 2010, 'Regulations on the Construction, Upgrading, Renewal, Conformity Assessment and Acceptance for Placing in Service of the Rolling Stock''	Reporting information on the types of rolling stock accepted for placing in service to the European Railway Agency (new responsibility)

As of 31 December 2012, there were 22 permanent jobs at the Inspectorate. During the reporting year, the number of permanent jobs at the Inspectorate increased from 19 to 22. The Inspectorate comprises four departments, of which three perform control and supervisory functions and one is responsible for the implementation of support functions:

• Traffic Safety Department

The Department is responsible for the supervision and control of railway technical operations with the aim to ensure that the requirements of railway regulations are observed and implemented. Each Department staff member is responsible for the monitoring of traffic safety, and presenting reports on a specific railway sector – repairs and upgrades of the rolling stock, rolling stock operation, infrastructure, transport of dangerous goods, railway technical operation, registration and control of railway accidents.

• Building and Certification Department

The Department is responsible for the implementation, control and supervision of the railway certification process. Each Department staff member is responsible for a specific area – certification of railway specialists, certification of undertakings, supervision of the construction process.

• Development Department

The objective of the Department is to control the safety management system, interoperability compliance matters, to implement policy action and to ensure adherence to public administration principles at the Inspectorate. Each Department staff member is responsible for a specific area – transport of dangerous goods, risk assessment, interoperability matters, mutual recognition matters. The Department is also in charge of cooperation with the European Railway Agency and representing Latvia in working groups.

• Planning and Accounting Department

The objective of the Department is to ensure effective and transparent planning and utilisation of state budget funds, accounting, and organisation of internal management processes at the Inspectorate.

The Inspectorate is headed by its Director. The Director is appointed by the Minister for Transport upon the approval of the candidate by the Cabinet of Ministers.

6. Railway safety

6.1. Reporting system

The accident reporting system is laid down in the Cabinet of Ministers Regulation No 999 of 26.10.2010, '*Procedures for the Classification, Investigation and Recording of Railway Traffic Accidents*'. All accident reports are entered in the Inspectorate's database. The database is constantly upgraded and linked up with other registers and registration systems. All railway accidents in Latvia that have been reported (voluntarily or under orders) to the State Railway Technical Inspectorate are entered in the database. More than 5,000 reports are entered in the database annually. The information in the database serves as the basis for the analysis of traffic safety indicators and the assessment of railway safety performance. As regards accident reporting, it may be concluded that railway undertakings' performance differs from one to another. Timely reporting helps evaluate shortcomings and prevent the possibility of serious accidents in the future. There are undertakings with poor reporting culture that do not sufficiently report traffic safety at the enterprise, which is comparatively dangerous as it makes the timely determination of risks, and prevention thereof, impossible, thereby significantly affecting traffic safety.

Upon receiving a report, the State Railway Technical Inspectorate:

- evaluates information it has received and enters it in the database;
- classifies accidents according to the classification system;

• takes the decision, which of the railway accidents need to be investigated and/or whether additional information is necessary;

• examines if the parties involved take the necessary action to submit precise reports and to eliminate or rectify the situations that are described in the reports;

- analyses reports and information on the whole in order to identify problems and trends;
- publishes information on railway accidents;

• presents the data obtained and results of the analyses to the authorities that are in charge of traffic enforcement;

• offers recommendations, within its area of authority, regarding opportunities to improve safety performance;

• participates in the exchange of reported data with other EU Member States and authorities.

There are railway accidents that trigger a string of consecutive events, meaning that one accident may cause another, more serious accident. For instance, a broken rail may cause a derailment. Such accidents are classified in more than one way in the database.

The goal of the State Railway Technical Inspectorate is to achieve that all safety-related information is reported, compiled, stored and protected, and that shortcomings are analysed, especially systemic shortcomings.

Any person can report a railway accident to the State Railway Technical Inspectorate by dialling the phone number indicated at the Inspectorate's website. The official electronic mail address of the State Railway Technical Inspectorate is <u>vdzti@vdzti.gov.lv</u>.

6.2. Measures to improve traffic safety

After issuing a safety certificate or safety authorisation, the State Railway Technical Inspectorate must verify whether operational results indicated in the safety certificate or safety authorisation have been attained, and whether all the relevant operation requirements are being constantly observed.

During the reporting year, the number of decisions to prohibit an operation decreased, and one administrative penalty was imposed – a fine for a failure to observe technical operation requirements. Decisions on the implementation of the following safety measures were made in 2012:

Description of causes	Measures implemented
Failure to implement technical operation requirements on railways	Prohibition of operations until elimination of shortcomings (ten cases)
Risk of track bed collapse due to accumulation of drain water on tracks	Prohibition of operations until elimination of shortcomings (one case)
Failure to ensure rolling stock maintenance and registration	Prohibition of operations (eight cases)
Imprecise information reported about railway accidents	Request for additional information (one case)

Although the number of accidents is reducing, some accidents called for measures to be implemented in order to reduce risks and upgrade the technical equipment of the infrastructure, and reduce the effect of human error on traffic safety.

Description of accident	Measures implemented
Accident to person caused by	Warning signs set up to keep unauthorised
Malta Station I, main rail track	persons out of the high-risk area (implemented in October 2012)
Accident to employee caused by	1. Revision of job safety procedures (revised
rolling stock in motion (reception –	on 27-30 April 2012)
departure line)	2. Revision of technological procedures for securing rolling stock (revised in May 2012)
	Description of accident Accident to person caused by rolling stock (freight train) in motion Accident to employee caused by rolling stock in motion (reception – departure line)

Date, place of accident	Description of accident	Measures implemented
21.09.2012, Jugla-Garkalne, 14th km, 3rd milepost	Accident to person caused by rolling stock (passenger train) in motion	Warning signs set up to keep unauthorised persons out of the high-risk area (implemented in October 2012)
18.06.2012, Cēsis Station I, main rail track, level crossing (with light signals)	Collision with train locomotive at a level crossing, killing three persons	 Risk analysis of the most dangerous level crossings (continues in 2013) Development of a procedure on posting information signs at unmanned level crossings should they be damaged (hotline number) (Procedure developed in August and December 2012)⁹ Quality preparation of speedometers before a trip (continues, to be implemented in five years)¹⁰

6.3. Railway safety performance analysis

The number of serious railway accidents decreased in 2012 by 28% compared with 2011. Analysis of the data shows that the number of serious accidents tends to decrease. Compared to 2004, the decrease is about 50%, i.e. the number of serious accidents has fallen by half. The number of accidents to persons caused by rolling stock in motion has also reduced, nevertheless, they still make up the largest proportion of all accidents. Railway accidents have serious consequences. In over 60% of accidents, victims suffer fatal injuries. The state loses economically-active residents because the average age of victims is 46.



In terms of transport volumes (train-kilometres), the number of railway also tends to decrease.

25 serious accidents were registered during the reporting year. The proportion of injured persons was 96% of all cases.

⁹Information posters are to be set up at all unmanned level crossings at the main lines, indicating every level crossing's number and railway section dispatcher's telephone numbers, so train drivers could report dispatchers any damage to level crossing devices or obstacles that they may notice.

¹⁰A new electronic speedometer system is introduced during the modernisation of locomotives.

Railway accident statistics	2009	2010	2011	2012
Total, including	30	43	35	25
Accidents involving injuries	27	37	33	24
Accidents without injuries	2	5	2	1

The number of serious accidents has decreased since 2004. The number of accidents to persons caused by rolling stock in motion has reduced significantly. The proportion of accidents at level crossings in the total number of accidents has remained comparatively unchanged, at an average of 8-10 accidents annually. Most accidents, 70%, are registered at unmanned level crossings (active level crossings with light signals), when car drivers fail to observe road traffic safety requirements or pedestrians fail to observe safety requirements due to the human factor. Pedestrians (2), cyclists (1), car drivers and passengers (5) sustained injuries in level crossing accidents in 2012. The number of accidents involving dangerous goods has increased slightly. One case of hazardous freight leakage occurred in 2012 due to a train derailment. As a result of the accident, petroleum mineral lubricant and industrial solvent leaked at the site.



Sadursmes	Collisions
Nobraukšana no sliedēm	Derailments
Sadursmes uz dzelzceļa pārbrauktuvēm, tai skaitā ar cietušajiem vilciena kustības laikā	Collisions at level crossings, including accidents to persons caused by rolling stock in motion
Negadījumi ar personām vilcienu kustības laikā	Accidents to persons caused by rolling stock in motion

Accidents to persons caused by rolling stock in motion still account for the majority of accidents recorded in Latvia (72% of the total). In 2011, the proportion was 74%, up from 66% in 2010 and 63% in 2009. It has to be added, that accidents to persons caused by rolling stock in motion and accidents at level crossings also represent the majority of the total number of accidents in Europe (approximately 67%). The main cause of such accidents is people's irresponsible behaviour near railway tracks.

The analysis of data regarding casualties suggests that every year most of the injured are in the 'active age' bracket. In 2011, the average age of persons injured in railway accidents was 42 years. The review period is one of the few years when no accidents involving children under 12 were registered. Men constitute the largest proportion of those injured in railway accidents, 81-86% annually, of which 40-50% (depending on year) were under the influence of alcohol. This suggests that the injured had failed to heed the danger when crossing railway tracks.

As the number of accidents reduced, so did the total number of casualties. Only one accident was registered in 2012 where several persons were injured – a train collision with a car at a level crossing. The number of fatalities rose significantly during the reporting year, amounting to 69% of the total number of persons injured in railway accidents. The proportion of fatalities was particularly high in 2007. Since 2004, the average proportion of fatalities has been 51%.

In terms of categories of persons, the number of casualties has decreased employees for and passengers. Both categories constitute a small part, under 5%, of the total number of casualties. The largest proportion of casualties is made up of persons in high-risk unauthorised this areas, but proportion also gradually decreases. Fencing off railway premises has resulted in fewer cases of persons being hit by a train especially in Riga. People have also begun to heed train traffic when at level crossings or platforms. One more factor contributing to fewer casualties is the construction of chicanes. The number of casualties has fallen more than twofold since 2008. At the moment, risk assessment at level crossings should be given more attention. People hurry, they do not want to stand in long queues at level



Kopā cietušie	Casualties, total			
Gūti miesas bojājumi	Injuries			
Gājuši bojā	Fatalities			

crossings, are reckless and do not observe the rules. The State Police have contributed greatly to improving drivers' conduct at level crossings. In 2012, 932 drivers were issued administrative reports for failing to observe traffic safety rules, most of which for failing to stop at a red light.

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total	74	66	63	45	60	29	37	35	23
Unauthorised persons in high-risk areas	55	50	51	31	30	9	20	21	13

Level crossing users	16	6	0	4	13	6	10	8	8
Other persons	0	0	0	1	11	8	7	5	4
Passengers	0	8	1	1	2	3	0	0	0
Railway employees	3	5	11	8	4	3	0	1	1

Many people have headphones on while in the vicinity of railway tracks, and therefore fail to hear signals. This means that they are crossing railway tracks in violation of safety requirements. In 2012, three persons were injured due to wearing headphones and failing to hear approaching train signals.

The data shows that the largest numbers of casualties are registered in September each year. This may be attributable to the beginning of the new school year and the end of the holiday season. The proportion of casualties is also rather high in December, which may be attributable to poor weather conditions – snow and ice. The highest number of injuries occurs at railway stations and in the agglomeration area of Riga, especially on the Riga – Aizkraukle line (40% of the total number of accidents). This is due to the fact that the traffic on the line is the heaviest. Comparatively many accidents on level crossings are also registered on the Riga – Aizkraukle line. Most accidents, 43.59% of the total, occur between 6 p.m. to midnight.

As regards technical failures, the number thereof fluctuates yearly. Compared to 2010, the number of broken rails and track geometry faults has increased due to the introduction of new definitions and classification pursuant to the requirements of Directive 2009/149/EC and due to changeable weather conditions (frost, thaw, snow) over the past three years. On the other hand, railway technical operation violations – failure to stop at a red light – fluctuate between two and five cases a year. On average, 5% of such cases result in serious accidents. The total annual number of technical failures is under twenty.



Sliežu lūzumi	Broken rails
Sliežu ceļu ģeometrijas novirzes	Track geometry faults
Vairāk atļaujošas signāluguns ieslēgšanās aizliedzošā vietā	Signalling information less restrictive than demanded
Pabraukšana garām aizliedzošajam signālam	Rolling stock passing by the restrictive signal
Riteņu ass bojājumi vai lūzumi	Damaged or broken wheel axles

The number of suicides on railways decreased in 2012, but the proportion of suicides on railways in the total number of accidents remained unchanged from the past several years (on average, 20% of the

total number of accidents). Seven suicides were registered during the reporting year, ten suicides were registered in 2011 and 13 suicides were registered in 2010. It is mostly young people who commit suicides on railways. More than 70% of suicides are committed by men. Unbalanced persons who have received treatment in hospitals or social care centres account for 40% of suicide attempts. Alcohol is also a common factor in suicides on railways.

6.4. Safety recommendations

The State Railway Technical Inspectorate investigated one accident in 2012.

A serious railway accident occurred at switch No 1 of railway post 401st km on the Daugavpils – Indra – State border railway section on 8 January 2012 at 10:10 p.m. A freight train with 58 loaded tank cars and one hopper loaded with coal was travelling from the state border to Daugavpils Station. As a result of the accident, 17 tank cars loaded with dangerous goods derailed. 16 tank cars overturned, of which five partly spilled their shipment (industrial solvent, petroleum mineral lubricant). In total, approximately 180 tonnes of dangerous goods leaked from the train cars. Rescue teams in cooperation with the railway infrastructure manager cordoned off the site. Train traffic in the Krauja – railway post 401st km section and railway post 401st km – Naujene section was suspended for 35 hours and 50 minutes, and at railway post 401st km – railway post 524th km for 90 hours and 10 minutes. After arriving at the scene, the Transport Accident and Incident Investigation Bureau investigators established that the left point of the switch had broken in two places, which had caused the derailment¹¹.

Further investigation found that a non-destructive examination (employing a defectoscope) had recorded cracks in the left point of the switch, however, the railway infrastructure manager had not ascertained the fault early enough.

Continuing the investigation, the Transport Accident and Incident Investigation Bureau studied how work of the railway infrastructure manager's non-destructive examination units, and non-destructive examination training, was organised, and interviewed several non-destructive examination personnel members. In conclusion, three safety recommendations were formulated and issued to the railway infrastructure manager. The safety recommendations address the following areas:

- Organisation of work of the railway infrastructure manager's non-destructive examination units;
- Improving internal documentation concerning the railway infrastructure manager's nondestructive examination procedures;
- Technical devices to reduce errors due to the human factor.

The State Railway Technical Inspectorate was submitted the final report and recommendations on 27 December 2012. The recommendations were implemented in 2013. Information about the process of implementation of the recommendations will be provided in the 2013 Safety Performance Report.

¹¹FINAL REPORT ON INVESTIGATION OF A SERIOUS RAILWAY ACCIDENT No 5-02/1-12-(1/2012) Derailment of a Freight Train at the Railway Post 401st km on 8 January 2012

7. Changes in legislation

All national safety regulations are endorsed by the Cabinet of Ministers and printed in the official newspaper 'Latvijas Vēstnesis' (<u>www.vestnesis.lv</u>). All the regulatory enactments regarding the railway are available at the website <u>www.likumi.lv</u>, as well as at the Internet website of the State Railway Technical Inspectorate <u>http://www.vdzti.gov.lv/index.php?id=322&sa=322</u>. This information is also available in English at <u>http://www.vdzti.gov.lv/index.php?id=354&sa=354</u> or <u>www.vvc.gov.lv</u>.

All regulations and orders of the Cabinet of Ministers are binding on railway undertakings and infrastructure managers. The same also refers to railway companies involved in the building, repair, and maintenance of rolling stock and technical infrastructure equipment, as well as in the shunting service.

The following draft regulations were submitted and endorsed in 2012:

• Cabinet of Ministers Regulation No 350 of 22.05.2012, '<u>Amendments to the Cabinet of Ministers</u> <u>Regulation No 236 of 28 March 2006, 'Regulations on Qualification Requirements and Certification</u> <u>Procedure for Traction Vehicle Driver's (Train Driver's) Instructor, Traction Vehicle Driver (Train Driver),</u> <u>Traction Vehicle Driver's (Train Driver's) Assistant</u>;

• Cabinet of Ministers Regulation No 349 of 22.05.2012, '<u>Amendments to the Cabinet of Ministers</u> <u>Regulation No 360 of 2 May 2006, 'Regulations on Railway Specialists'</u>;

• Cabinet of Ministers Regulation No 351 of 22.05.2012, '<u>Amendments to the Cabinet of Ministers</u> Regulation No 873 of 14 September 2010, 'Regulation Regarding Obtaining a Traction Vehicle Driver's (Train Driver's) Qualification and Licence to Drive a Traction Vehicle';

• Cabinet of Ministers Regulation No 401 of 12.06.2012, '<u>Amendments to the Cabinet of Ministers</u> <u>Regulation No 1211 of 28 December 2010, 'Regulations on the Construction, Upgrading, Renewal,</u> <u>Conformity Assessment and Acceptance for Placing in Service of the Rolling Stock'</u>;

• Cabinet of Ministers Regulation No 543 of 07.08.2012, '<u>Amendments to the Cabinet of Ministers</u> <u>Regulation No 392 of 6 October 1998, 'Regulations on the Construction, Equipment, Maintenance and</u> <u>Closing of Level Crossings and Pedestrian Crossings'</u>;

• Cabinet of Ministers Decree No 468 of 03.10.2012, 'Amendments to the Cabinet of Ministers Decree No 488 of 28 September 2011, '<u>On Endorsing the 2012 Budget of the State Railway Technical Inspectorate</u>";

• Cabinet of Ministers Decree No 469 of 03.10.2012, 'On Endorsing the 2013 Budget of the State Railway Technical Inspectorate'.

Further analysis is provided in Appendix 4.

Regulatory documents that are also binding on railway undertakings and in which State Joint Stock Company a/s Latvijas dzelzceļš, as the manager of the railway infrastructure, regulates the use of railway infrastructure are issued in accordance with Section 5, Article 2¹ of the Railway Law. Binding directions issued by the manager of the public railway infrastructure that are binding on railway undertakings are updated and summarised in the Network Review published on the manager's website at <u>www.ldz.lv</u>. The information is also available on the Inspectorate's website.

In 2012 the public railway infrastructure manager issued 19 new and three amended regulatory documents (published at <u>www.ldz.lv</u>), which are binding on railway undertakings, including the procedure¹² of railway accident notification, recording, investigation and registration, environmental policy, job safety policy, risk assessment procedures, emergencies, classification and frequency of railway infrastructure

¹²Safety Performance Report of State Joint Stock Company a/s Latvijas dzelzceļš. Year 2012.

maintenance and development measures, long-term strategy, procedure of the reporting system among railway specialists, action in the event of faulty devices, and the procedure of issuing warnings for the BIS-K system.

8. Safety certificates and authorisations

The State Railway Technical Inspectorate issues Part A and Part B railway safety certificates and safety authorisations (as part of safety permits). The certification process is free of charge. The Building and Certification Department is responsible for the assessment of the systems.

All information on the certification process is available at the Inspectorate's website <u>www.vdzti.gov.lv</u>, section Certification/safety certification or Certification/safety permits. The information is also available in the English language: <u>http://www.vdzti.gov.lv/index.php?top=336&id=336</u>. The Building and Certification Department is in charge of the certification process at the Inspectorate.

8.1. Issue of safety certificates

Pursuant to the Cabinet of Ministers Regulation No 168 of 10 March 2008, '<u>Regulations Regarding</u> the Procedures and Criteria for Issuing, Suspending and Revoking Part A and Part B of a Safety Certificate', each railway undertaking must develop and maintain a safety management system that includes risk assessment system and risk control management, competence and safety management.

There are six undertakings in Latvia, which, in accordance with the current safety regulations, have the right to provide railway (freight, passenger) transport services using the public railway infrastructure: SIA LDZ Cargo, a/s Lietuvos geležinkeliai, a/s Baltijas Ekspresis, a/s BALTIJAS TRANZĪTA SERVISS, SIA Gulbenes –Alūksnes bānītis (narrow gauge railway) and a/s Pasažieru vilciens.

	2009	2010	2011	2012
Issued safety certificates Part A	2	0	1	0
Passenger and freight transport	1	-	-	-
Passenger transport	-	-	1	-
Freight transport	1	-	-	-
Issued safety certificates Part B	5	0	6	1
Passenger and freight transport	1	-	2	1
Passenger transport	1	-	2	-
Freight transport	3	-	2	-
Total	7	0	7	1

The State Railway Technical Inspectorate issued one Part B safety certificate in 2012.

Safety certificates Part A are issued to *undertakings that have developed and maintain a safety management system.* In 2012, the State Railway Technical Inspectorate received no applications for the issue or correction/alteration of safety certificate Part A.

Safety certificates Part B are issued to undertakings that comply with the requirements on technical operations existing in Latvia and safety requirements regarding personnel, rolling stock and the internal

structure of a given undertaking. At the end of 2011, the State Railway Technical Inspectorate received an application for a new safety certificate Part B, and took a decision in 2012 to issue safety certificate Part B to a/s Lietuvos geležinkeliai for providing railway transport services in the territory of Latvia.

The State Railway Technical Inspectorate also has the right to suspend safety certificate Part A and/or Part B if a given carrier has violated the requirements (provided false information, the validity of safety certificate Part A and/or Part B is suspended repeatedly within a year, the safety certificate has not been utilised, the carrier has terminated operations) on the basis of which safety certificate Part A and/or Part B was issued to the carrier. Pursuant to Section 35, Part 1 of the Railway Law, the suspension and revocation of safety certificate Part A and/or Part B bans the carrier from accessing public railway infrastructure. During the reporting year, the Inspectorate did not take any decisions regarding the suspension or revocation of a safety certificate.

Information on safety certificates Part B issued by the State Railway Technical Inspectorate can be found at the Inspectorate's website <u>www.vdzti.gov.lv</u>, section <u>Certification/Safety Certification</u>.

8.2. Issue of safety permits

The requirements on infrastructure managers' safety authorisations are laid down in the Railway Law and the Cabinet of Ministers Regulation No 57 of 18.01.2011, '<u>Regulations Regarding the Criteria and</u> <u>Procedure for the Issuance, Suspension of Operation and Revocation of a Safety Permit</u>'. Section 1, Article 22 of the Railway Law stipulates that the public railway infrastructure manager must implement a safety administration system. The safety administration system of the public railway infrastructure manager has been endorsed in Section 5 and Annex 3 of the Cabinet of Ministers Regulation No 57 of 18.01.2011, 'Regulations Regarding the Criteria and Procedure for the Issuance, Suspension of Operation and Revocation of a safety permit', thereby transposing the Railway Safety Directive's requirements on the endorsement of infrastructure managers' safety administration systems, which are issued the relevant safety permits (safety authorisations). Pursuant to Section 35¹, Part 1 of the Railway Law, such safety permits (safety authorisations) give the holder thereof the right to manage and operate public railway infrastructure. Companies primarily engaged in business activities other than railway transport, for instance railway infrastructure or rolling stock construction and maintenance, must also obtain the safety permit, which confirms the safety of their operations in the railway industry. Safety permits are issued:

- for public railway infrastructure management;
- for private railway infrastructure management;
- for shunting operations;
- for the construction, repair or technical maintenance of railway infrastructure technical equipment;

• for rolling stock construction and repairs, and to structural units responsible for technical maintenance of the rolling stock.

The Inspectorate issued seventy safety permits in the reporting year (with specific identification numbers denoting the type of commercial activity), suspended the operation of eleven safety permits and revoked ten safety permits. The number of applications received for the construction, repair and technical maintenance of rolling stock increased in 2012.



Commercial activity	2011	2012
Public railway infrastructure management	0	0
Private railway infrastructure management	57	14
Shunting operations for train traffic between stations and shunting operations at railway stations	0	1
Shunting operations in private railway infrastructure	3	3
Construction, repair and technical maintenance of rolling stock	6	25
Construction, repair and technical maintenance of railway infrastructure technical equipment	28	35
Safety permits issued ¹³	85	70
Safety permits revoked	4	10
Operation of safety permits suspended	9	11

Pursuant to Article 7, Part Three, Section 33 of the Railway Law, the State Railway Technical Inspectorate is responsible for issuing, renewing and altering safety permits, as well as suspending or revoking safety permits. Given that the safety permit is an administrative act because it grants the holder thereof the right to manage and operate railway infrastructure, the safety permits are issued in accordance with the Administrative Procedure Law. During the reporting year, safety permits were revoked due to changes of commercial undertakings' names, changes of registered addresses, changes in commercial activity, change of infrastructure owner, or the issuing of a corrected/amended safety permit.

Information on safety permits issued by the State Railway Technical Inspectorate can be found at the Inspectorate's website www.vdzti.gov.lv, section Certification/Safety Permits.

9. Supervision of railway undertakings

During the supervision process, the Inspectorate must observe the fundamental principles of the national safety authority as regards supervision: proportionality, consistent approach, appropriateness, transparency, responsibility and cooperation, as provided in Regulation (EU) No 1158/2010 and Regulation (EU) No 1169/2010.

The State Railway Technical Inspectorate of Latvia supervises the following areas:

- supervision of technical operations; •
- assessment of safety management systems' efficiency; •
- checks of railway specialists' competence;
- rolling stock conformity assessment;
- assessment of conformity of facilities being built; •
- infrastructure conformity assessment;
- supervision of transport of dangerous goods; •
- investigation of railway accidents.

¹³Several types of commercial activity can be provided in a safety permit.

The State Railway Technical Inspectorate's Traffic Safety Department is in charge of the supervision procedures.

9.1. Inspections and examinations

The State Railway Technical Inspectorate conducted 94 inspections in 2012, thereby also ensuring the assessment of safety management systems at railway undertakings. The number of inspections is lower than originally anticipated. Fewer inspections were conducted in the areas of dangerous goods and infrastructure supervision due to staff turnover.

		2009	2010	2011	2012
1.	Inspections	107	108	121	94
1.1.	Assessment of safety management systems' efficiency	6	5	6	7
1.2.	Comprehensive inspections	22	18	17	35
1.3.	Specific inspections	79	85	98	54
2.	Inspected objects and activities, including	96	95	101	89
2.1.	Undertakings	5	5	5	5
2.2.	Rolling stock maintenance companies	17	15	17	13
2.3.	Loading, unloading of dangerous goods	11	17	20	9
2.4.	Facilities being built	0	3	2	2
		2009	2010	2011	2012
2.5.	Infrastructure maintenance and shunting operations	63	55	57	60
3.	Inspection results	107	108	121	94
3.1.	Decisions taken on				
3.1.1.	Prohibition of use of railway tracks	9	13	26	10
3.1.2.	Prohibition of rolling stock operation	7	15	13	8
3.1.3.	Suspension of railway specialists from duty	4	2	0	0
3.2.	Orders issued	86	75	78	75
3.3.	Administrative reports issued (application of penalties)	1	3	4	1

Scheduled inspections accounted for 93% of all inspections in the reporting year. The Inspectorate may also conduct unscheduled inspections if it has information about violations of or incompatibilities with railway laws and regulations. Unscheduled inspections represented 7% of all inspections in 2012.

89 inspections were conducted at facilities/companies in 2012. The number of comprehensive inspections rose significantly in the reporting year. Comprehensive inspections examine several areas, such as shunting operations and the technical condition of infrastructure, rolling stock and internal monitoring systems, etc. In determining the overall scope of an inspection, the Inspectorate appraises information already available to the Inspectorate, the amount of time that has passed since the last inspection, and

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information on the introduction of recommendations given during the last inspection. Most inspections conducted by the Inspectorate are specific inspections that examine the dangerous goods system, rolling stock, sidings, etc. Assessment of a safety management system's efficiency takes more time (three to five working days). In two cases, safety management systems were examined partly, and in five cases in their entirety.

Railway undertakings and the public railway infrastructure manager are inspected not less than once a year. Companies that have been issued safety permits are inspected not less than once during the safety permit's term of validity (five years). Recipients and forwarders of dangerous goods are inspected not less than once every three years. Assessment of safety management systems and comprehensive inspections is planned within the framework of the reference year. Specific inspections are planned on a monthly basis.

The State Railway Technical Inspectorate also conducts inspections of switches. Senior inspectors participated in 108 annual railway switch commission inspections in 2012. Switch inspections are organised pursuant to the Cabinet of Ministers Regulation No 392 of 6 October 1998, '<u>Regulations on the Construction, Equipment, Maintenance and Closing of Level Crossings and Pedestrian Crossings</u>'. Besides the annual commission inspections, the senior inspectors also participated in the commissions' work on the construction, equipment and closing of level crossings. The inspectors participated in nine railway switch inspection commissions' work in the reporting year.

	Level crossings	2009	2010	2011	2012
1.	Annual inspections of level crossings	133	125	148	108
2	Construction, closing, equipment of level crossings	14	10	17	9
	Total	147	135	165	117

9.2. Organisation of written examinations and tests of persons authorised to enforce railway safety requirements

The State Railway Technical Inspectorate ensures checks on the competence of members of companies' commissions and of such persons who are authorised to perform checks on the competence and qualifications of companies' railway specialists. Written examinations are meant to ensure that railway specialists involved in railway operations guarantee safe railway operations, traffic safety and proper organisation of work. Tests are organised following companies' applications.

Starting from 2012, written examinations are performed with the help of computer software. The State Railway Technical Inspectorate organised 230 examinations and awarded certificates to 145 specialists in 2012.

Written examination	2009	2010	2011	2012
Number of certified railway specialists	128	221	168	145

Certified persons have the right to perform checks on the competence of their companies' railway specialists to assess their knowledge of Railway Technical Operations Regulations and the related laws and regulations on railway safety.

9.3. Supervision of safety advisers (consultants) responsible for transport of dangerous goods

The Cabinet of Ministers Regulation No 156 of 21 February 2006, '<u>Regulations Regarding Appointment</u> of Safety Advisers (Consultants), Vocational Qualification and Activities Thereof in the Field of Transport of <u>Dangerous Goods</u>', lays down the State Railway Technical Inspectorate's tasks regarding the administration of qualification of safety advisers (consultants) on the transport of dangerous goods and the development of a system for the supervision of the advisers' work. The State Railway Technical Inspectorate is responsible for inspecting companies (specific inspections (see Chapter 10.1)), monitoring safety advisers' activities, and organising the examination procedures.

A safety adviser (consultant) monitors and regularly verifies the conformity of activities of the company to the regulations on the transport of dangerous goods. The right of a person to perform the duties of a safety adviser (consultant) is confirmed by a respective vocational training certificate. The State Railway Technical Inspectorate organised 37 examinations and awarded vocational training certificates to 28 safety advisers (consultants) in 2012.

	2009	2010	2011	2012
Vocational training certificate	29	14	22	28

The State Railway Technical Inspectorate received 174 annual reports from safety advisers (consultants) in the reporting year. The volume of transport of dangerous goods increased in 2012.

Annual Report for	2008	2009	2010	2011
Number of reports	147	147	145	174
Volume of transport of dangerous goods (tonnes)	22,680,000	20,713,000	17,126,000	21,920,000

9.4. Investigation and recording of railway accidents

The State Railway Technical Inspectorate is responsible for the investigation and recording of railway accidents. The investigation and recording of railway accidents is performed pursuant to the requirements of the Cabinet of Ministers Regulation No 999 of 28 October 2010, '*Procedures for the Classification, Investigation and Recording of Railway Traffic Accidents*'.

The State Railway Technical Inspectorate conducted the investigation of 38 railway traffic safety violations (without serious consequences) in 2012.

Railway traffic safety violations were investigated in the following instances:

- train collision with other rolling stock;
- rolling stock derailment;
- routing of a train along an unprepared route;
- rolling stock passing the prohibiting signal.

	2009	2010	2011	2012
Investigations of railway accidents	19	34	31	38

The number of investigations increased 22% in the reporting year. The number of derailments and rolling stock collisions increased by 3% in 2012, and there was a notable increase in the number of damaged equipment. This is due to maintenance shortcomings and failures to observe the relevant



procedures. The violations can be largely attributed to specialists' erroneous actions at work and in emergency. It is impossible to completely avoid these instances, however, such measures must be implemented as to reduce the number thereof to a minimum.

10. Analysis of undertakings and public railway infrastructure manager's Reports

10.1. Public railway infrastructure manager's report

The report informs about safety trends established, actions taken for railway safety, and results achieved by the State Joint Stock Company a/s *Latvijas dzelzceļš* as the infrastructure manager. The report offers information on measures to improve the infrastructure and to reduce the number of accidents with casualties.

Several safety campaigns were organised in 2012 to inform society about the various aspects of railway safety, and the important role of safety requirements in the prevention of accidents. It has to be noted, however, that the company's interest in safety was not as active as it could have been. In order to improve individual safety and reduce the risk of potential accidents on railways, the State Company a/s *Latvijas dzelzceļš* renovated platform surfaces and edges at several railway stations, several pedestrian crossings were reconstructed for the ease of use by people with physical disabilities, several chicanes were built so that pedestrians and cyclists could not cross railway tracks without stopping, etc.

In order to ensure system supervision and control, State Company a/s *Latvijas dzelzceļš* has set up the internal monitoring system for traffic safety. The system also provides schedules for technical audits and inspections¹⁴.

	Scheduled	Conducted	%
Technical audits	110	110	100
Internal inspections	3,880	4,357	112

The internal inspections examined the procedures for signalling system maintenance, railway track supervision, and the supervision of train car inspections. During the technical audits and inspections, several violations were established, as well as recommendations being offered to the responsible officials regarding the elimination of shortcomings and the improvement of the overall traffic safety situation.

The report also includes information on risk assessment procedures. Further information is provided in Chapter 12.

10.2. Railway transport undertakings' reports

The State Railway Technical Inspectorate received undertakings' reports by 30 June 2012. The reports dealt with the implementation of safety measures, the structure of companies' internal monitoring system, and general statistical information. Information on railway accidents was provided in appendices.

The analysis of the reports indicates that undertakings still find it problematic to classify and analyse accidents. Train delays are also a problem, taking into account that during the investigation of accidents

¹⁴SAFETY PERFORMANCE REPORT of State Company a/s Latvijas dzelzceļš. YEAR 2012

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with casualties, the police also initiate a criminal process, which hampers train traffic significantly and causes losses to undertakings. It is not unusual for train traffic to be interrupted for more than two hours.

In 2012, all transport undertakings audited their safety management systems to make sure that the systems ensure the safety of the undertakings' operations. All elements of the safety management systems were audited, and it was also examined whether the internal regulations provided for traffic safety processes and procedures, and whether the safety management systems were still efficient. After reports on the audit results were received, it was concluded that:

10.2.1. The safety management system is efficient and guarantees safety. Documents, procedures and processes on operations confirm the requirements of regulatory enactments, technological processes and ensure the safe provision of services. The objectives and principles of the safety policy are up to date, and development priorities remain unchanged;

10.2.2. Improvements are needed in the safety management system by introducing relevant processes and responsibility levels, and by ensuring that internal regulations are revised pursuant to the requirements of external regulatory enactments.

Additionally, an external certification audit was performed for a transport undertaking pursuant to the requirements of the ISO 9001:2008 standard, where all processes within the undertaking were audited.

Operational strategies and development plans have been developed for maintenance and improvements in the safety management system. Annual and long-term operational strategies have been developed. The operational strategies are developed according to proposals presented by the structural units of undertakings.

More inspections than originally anticipated were conducted at undertakings pursuant to the internal monitoring system. The internal traffic safety monitoring system establishes the order of priority, the process of inspections, the process of training, instruction and personnel management, the schedule of planned measures, and the drawing up and implementation of reports and documents regulating train crews' work. Altogether, more than 6,000 internal inspections have been conducted. Monitoring systems at undertakings conform to the provisions of basic technical operation requirements.

11. Risk assessment

Railway undertakings, infrastructure managers and maintenance and construction companies adhere to European Commission (EC) Regulation No 352/2009 (24 April 2009) <u>on the adoption of a common safety method on risk evaluation and assessment as referred to in Article 6(3)(a) of Directive 2004/49/EC of the European Parliament and of the Council.</u> Companies have adopted internal risk assessment procedures, which include the registration of technical, technological and organisational changes and the assessment of the significance of the changes, identification and classification of the hazard thereof, determining the acceptability of the risk, the measures to be implemented, and responsibility so as to ensure the suitability of the system to fulfil its safety requirements and functionality. Companies performed several risk assessments in 2012.



Process	Classification	How the assessment was performed
Locomotive fleet optimisation by purchasing more powerful diesel locomotives ¹⁵	Not a significant change	Assessment process not necessary
Putting into service of TGM4-series diesel locomotives for shunting operations ¹⁶	Not a significant change	Assessment process not necessary
Introduction of automated system of commercial inspection of freight cars and trains, copying and recognition of car numbers ¹⁷	Significant change	Assessment process developed pursuant to internal traffic safety risk management system
Optimisation of Jelgava freight terminal's operations ¹⁸	Not a significant change	Assessment process not necessary
Introduction of control system in level crossing area at Skrīveri Station (73rd km, 5th railway post, Daugavas Street, Highway P32) ¹⁹	Significant change	Assessment process developed pursuant to internal traffic safety risk management system
Introduction of switch EW60EI-960-I:18 with Hydrolink, Spherolock and Ecostar 4.0 devices ²⁰	Significant change	Assessment process developed pursuant to internal traffic safety risk management system
Introduction of new switch, make 1/14, with frog ²¹	Significant change	Assessment process developed pursuant to internal traffic safety risk management system

The changes have been assessed as being in accord with traffic safety requirements. The risk management groups approved the introduction of all changes pursuant to the relevant risk management plans. Assessment of one of the changes employed precise assessment using a qualitative method, where experts evaluated the available documents and calculations, possible interactions and the likely level of hazard risk.

12. Priorities

The Inspectorate is planning internal as well as external measures. One of the priorities of the external measures is to follow the development of the Fourth Railway Package. The internal measures of the Inspectorate include upgrades to the internal supervision procedures (improvements to the audit system), including in the IT area, and the development of operational strategy in accord with the EU and Latvia's requirements.

- ¹⁸2012 SAFETY PERFORMANCE REPORT of State Company a/s Latvijas dzelzceļš
- ¹⁹2012 SAFETY PERFORMANCE REPORT of State Company a/s Latvijas dzelzcejš

¹⁵2012 Safety Performance Report of a/s Baltijas ekspresis

¹⁶2012 Safety Performance Report of a/s Baltijas ekspresis

¹⁷²⁰¹² SAFETY PERFORMANCE REPORT of State Company a/s Latvijas dzelzceļš

²⁰2012 SAFETY PERFORMANCE REPORT of State Company a/s Latvijas dzelzceļš

²¹2012 SAFETY PERFORMANCE REPORT of State Company a/s Latvijas dzelzceļš



Latvijas dzelzceļa shēma

Latvilas dzelzcelu snema	Latvi	ias dz	elzcelu	ı shēma
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Schematic diagram of Latvian railways

List of Latvian railway infrastructure managers and transport undertakings

Name	Website	Safety certificate or safety permit number	Area of activity
State Joint Stock Company Latvijas dzelzce <u>l</u> š	www.ldz.lv	LV-45, issued on 26.08.2008, valid until 25.08.2013	Infrastructure manager Network report <u>http://www.ldz.lv/?object_id=</u> <u>3094</u>
A/s Baltijas ekspresis	www.asbe.lv	LV 1120080007 (Part A) LV 1220090004 (Part B)	Carrier (freight transport)
A/s Pasažieru vilciens	www.pv.lv	LV 1120080003 (Part A) LV 1220110006 (Part B)	Carrier (passenger transport)
A/s BALTIJAS TRANZĪTA SERVISS	-	LV 1120080006 (Part A) LV 1220110007 (Part B)	Carrier (freight transport)
SIA Gulbenes-Alūksnes bānītis	<u>www.banitis.lv</u>	LV 1120110002 (Part A) LV 1220110003 (Part B)	Carrier (passenger transport)
SIA LDZ Cargo	www.ldz.lv	LV 1120090001 (Part A) LV 1220110005(Part B)	Carrier (freight and passenger transport)

²²²⁰¹² SAFETY PERFORMANCE REPORT of State Company a/s Latvijas dzelzceļš



A/s Lietuvos geležinkeliai	www.litraill.lt	LV 1220120001 (Part B)	Carrier (freight and passenger transport)
Structure of the State Railway Te	echnical Inspector	ate	Appendix 2

• Director

Traffic Safety Department

- Deputy Director, Head of Department
 - Senior inspector, rolling stock repair and modernisation
 - Senior inspector, rolling stock operation
 - Senior inspector, infrastructure
 - Senior inspector, railway operations
 - Senior inspector, dangerous goods
 - Senior desk officer, control matters

Building and Certification Department

- Head of Department
 - Chief expert, certification of railway undertakings
 - Chief expert, railway specialist certification
 - Senior desk officer, data verification
 - Project adviser
 - Senior desk officer, projects

Development Department

- Head of Department
 - Chief expert, railway policy
 - Chief expert, transport of dangerous goods
 - Chief expert, TSI matters
 - Chief expert, interoperability
- Planning and Accounting Department
 - Head of Department
 - Senior desk officer, registration matters
 - Senior desk officer, registration matters



Appendix 3

Changes in legislation in the reporting year

	Legal reference	Effective from	Description, amendment or new regulatory enactment
Functions and objectives			
Legislation that sets out tasks for the authority responsible for control and monitoring of technical railway operations	Cabinet of Ministers Regulation No 401 of 12.06.2012, 'Amendments to the Cabinet of Ministers Regulation No 1211 of 28 December 2010, 'Regulations on the Construction, Upgrading, Renewal, Conformity Assessment and Acceptance for Placing in Service of the Rolling Stock'	15.06.2013	Amendments. Present information about the types of rolling stock that are accepted for placing in service.
Regulations on assessment organisations, etc.	N/A	N/A	N/A
Safety regulations			
Regulations on safety targets and methods	N/A	N/A	N/A
Regulations on safety management systems and safety certificates of railway transport undertakings	N/A	N/A	N/A
Regulations on safety management systems and safety permits of infrastructure managers	N/A	N/A	N/A
Regulations on requirements on vehicle operators	N/A	N/A	N/A
Regulations on technical maintenance for the relevant structural units	N/A	N/A	N/A
Regulations on railway repair undertakings	N/A	N/A	N/A
Regulations on permits for acceptance into operation and maintenance of new or overhauled rolling stock	Cabinet of Ministers Regulation No 401 of 12.06.2012, 'Amendments to the Cabinet of Ministers Regulation No 1211 of 28 December 2010, 'Regulations on the Construction, Upgrading, Renewal, Conformity Assessment and Acceptance for Placing in Service of the Rolling Stock'	15.06.2013	Amendments. Present information about the types of rolling stock that are accepted for placing in service.



	Legal reference	Effective from	Description, amendment or new regulatory enactment
Regulations on uniform technical operations	Cabinet of Ministers Regulation No 543 of 07.08.2012, 'Amendments to the Cabinet of Ministers Regulation No 392 of 6 October 1998, 'Regulations on the Construction, Equipment, Maintenance and Closing of Level Crossings and Pedestrian Crossings'	11.08.2013	Amendments. Information about warning signs and signs with wording in the event of damaged signalling system.
Regulations on requirements for personnel	Cabinet of Ministers Regulation No 350 of 22.05.2012, 'Amendments to the Cabinet of Ministers Regulation No 236 of 28 March 2006, 'Regulations on Qualification Requirements and Certification Procedure for Traction Vehicle Driver's (Train Driver's) Instructor, Traction Vehicle Driver (Train Driver), Traction Vehicle Driver's (Train Driver's) Assistant'	25.05.2013	Amendments. Preconditions for applying for professional competence certificates. Requirements of examinations to determine psychophysiological suitability.
performing tasks critical for safety, including personnel selection criteria, health status, vocational training and certification	Cabinet of Ministers Regulation No 349 of 22.05.2012, 'Amendments to the Cabinet of Ministers Regulation No 360 of 2 May 2006, 'Regulations on Railway Specialists'	25.05.2013	Amendments. Written examination requirements. Requirements of examinations to determine psychophysiological suitability.
	Cabinet of Ministers Regulation No 351 of 22.05.2012, ' <u>Amendments to the Cabinet of Ministers Regulation</u> No 873 of 14 September 2010, 'Regulation Regarding <u>Obtaining a Traction Vehicle Driver's (Train Driver's)</u> <u>Qualification and Licence to Drive a Traction Vehicle'</u>	25.05.2013	Amendments. Requirements of examinations to determine psychophysiological suitability. Procedure of examinations. Appendix.
Regulations on investigation of railway accidents	N/A	N/A	N/A
Regulations on registration and analysis of data on railway accidents	N/A	N/A	N/A
Regulations on permits to accept for putting into service and maintain new or overhauled infrastructure facilities	N/A	N/A	N/A



Certification process - safety certificates (statistical data)

4.1.

	Total number of safety certificates	Number of safety certificates reported to ERADIS
Safety certificates Part A issued in		
2011	1	1
2012	0	0
Total number of valid safety certificates Part A		
2011	6	6
2012	6	6

4.2.

	Total number of safety certificates	Number of safety certificates reported to ERADIS
Total number of safety certificates Part B issued in	1	
2011	6	6
Safety certificate Part A issued in Latvia	6	6
Safety certificate Part A issued in another Member State	0	0
2012	1	1
Safety certificate Part A issued in Latvia	0	0
Safety certificate Part A issued in another Member State	1	1
Total number of safety certificates Part B valid in		
2011	5	5
2012	6	6

4.3.

Applications for safety certificates Part A		A ²³	R ²⁴	P ²⁵
Received in 2011, including	New certificates	0	0	0
	Corrected/altered certificates	0	0	0
	Renewed certificates	1	0	0
	New certificates	0	0	0
Received in 2012, including	Corrected/altered certificates	0	0	0
	Renewed certificates	0	0	0

²³A =Approved applications, safety certificates have been issued.

 $^{^{24}}$ R = Rejected applications, safety certificates have not been issued.

²⁵P = Application has been submitted and is being considered, but safety certificate has not yet been issued.

4.4.

Applications for safety certificates Part B		Α	R	Р	
	Osfatu as dificata	New certificates	0	0	0
	Safety certificate	Corrected/altered certificates	4	0	0
Received in 2011	all A ISSUEU III Latvia	Renewed certificates	2	0	0
including	Safety certificate	New certificates	0	0	1
J	Part A issued in	Corrected/altered certificates	0	0	0
	another Member State	Renewed certificates	0	0	0
	Safety certificate Part A issued in Latvia	New certificates	0	0	0
		Corrected/altered certificates	0	0	0
Received in 2012		Renewed certificates	0	0	0
including S	Safety certificate	New certificates	0	0	0
	Part A issued in	Corrected/altered certificates	0	0	0
	another Member State	Renewed certificates	0	0	0

4.5.

Number of safety certificates revoked in	Total number of safety certificates	Number of safety certificates reported d to ERADIS
2011	0	0
Part A	0	0
Part B	0	0
2012	0	0
Part A	0	0
Part B	0	0

4.6.

	Company name	Country where safety certificate Part A was issued	Year
	SIA LDZ Cargo	Latvia	2009
List of countries where railway transport undertakings that applied for safety certificate Part B were issued safety certificates Part A	A/s BALTIJAS TRANZĪTA SERVISS	Latvia	2008
	A/s Pasažieru vilciens	Latvia	2008
	A/s Baltijas Ekspresis	Latvia	2008
	SIA Gulbenes – Alūksnes bānītis	Latvia	2011
	A/s Lietuvos geležinkeliai	Lithuania	2011

4.7. The period of time from submission of application to the issue of certificate is one month (irrespective of the type of certificate).

Certification Process - safety Permits (safety Authorisations) (Statistical Data)

5.1.

		Total number of safety permits
Safety permits (safety authorisations) issued in		
	2011	0
	2012	0
Total number of safety permits (safety authorisations) valid in		
	2011	1
	2012	1

5.2.

Applications for safety permits (safety authorisations)		A ²⁶	R ²⁷	P ²⁸
Received in 2011, including	New certificates	0	0	0
	Corrected/altered certificates	0	0	0
	Renewed certificates	0	0	0
Received in 2012, including	New certificates	0	0	0
	Corrected/altered certificates	0	0	0
	Renewed certificates	0	0	0

5.3.

	Total number of revoked safety permits (safety authorisations)	
Number of revoked safety permits (safety authorisations) in		
2011	0	
2011	0	

5.4.

	New permit/ authorisation	Corrected/altered permit/authorisation	Renewed permit/authorisation
Average period of time from submission of application to issue of safety permit (safety authorisation)	One month	One month	One month

 $^{^{26}}$ A = Approved applications, safety permits have been issued.

 $^{^{27}}$ R = Rejected applications, safety permits have not been issued.

²⁸P = Application has been submitted and is being considered, but safety permit has not yet been issued.