



**The chairman**  
Railway Transport Office  
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# **SAFETY REPORT**

## **FOR 2006**

### **The network of National Safety Authorities in Poland**

**SEPTEMBER 2007**

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## **A. SCOPE OF THE REPORT**

The report contains information on:

- a) The railway structure with the list of railway infrastructure managers (Annex A.2.1.) and railway companies (Annex A.2.2.).
- b) Important changes in legislation and regulations pertaining to railway safety (Annex D);
- c) The state of railway safety, together with the aggregation of safety indicators – CSI (Annex C) at Member State level;
- d) Results and experience with regard to supervision of infrastructure managers and railway companies.

## **B. INTRODUCTORY SECTION**

### **1. Introduction to the report**

The aim of drafting an annual safety report is not only to fulfil the requirements of Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004 on safety on the Community's railways, but also to make it accessible, as a source of information, to different bodies active in the field of railways, at Member State level, and to other National Safety Authorities.

The aim of the annual safety report is to analyse the level of achievement of Common Safety Indicators and general trends in the development of railway safety at Member State and Community level.

The analysis is made on the basis of information on:

- the fulfilment of internal safety indicators and implementation of safety plans;
- the implementation of national safety indicators and Common Safety Indicators (CSI) within the scope of the activities conducted;
- cases of irregularities and conclusions with regard to operating the railway network; and
- results of the internal safety audits.

On the basis of information on the safety indicators by the units concerned Common Safety Indicators (CSI) are presented in the annual safety report which will be the basis for assessing safety both at the level of National Safety Authorities and at the level of the European Railway Agency. The CSI reference start date will be 2006.

The annual safety report drawn up by the National Safety Authorities – the Railway Transport Office – shall be announced by means of an announcement in the Official Journal of the Ministry of Transport and passed on to the European Railway Agency.

Based on the national solutions it receives, the European Railway Agency will prepare a harmonised format for Common Safety Indicators (CSI) and also use it for drafting common methods of measuring safety (CSM) and common safety targets (CST) for all the Community states.

## 2. Railway structure information

The managing body of the basic railway network in Poland, i.e. a total length of 18963.7 km, which is 96% of all track, is PKP Polskie Linie Kolejowe S.A. (PKP PLK S.A.) (Polish Railway Lines Partnership). The rest of the track is managed by eight infrastructure managers.

A schematic presentation of the main railway lines and the most important stations in Poland is attached as **Annex A.1**.

The list of infrastructure managers is given in **Annex A.2.1**.

The largest transporter of goods in Poland is PKP CARGO S.A., which accounts for 52% of general freight transport.

Passenger transport is provided by eight railway companies. Of these, the largest number of passengers is transported by PKP Przewozy Regionalne Sp. z o.o. (Regional Transport Ltd.), which accounts for 63% of general passenger transport.

The list of railway companies is given in **Annex A.2.2**.

## 3. The Safety Directive – stage of implementation, national basis of implementation:

The resolutions of Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004 on railway safety were incorporated into the Railway Transport Act of 28 March 2003 (Dz. U. (Official Journal) No 86, item 789 with later amendments) and came into force on 11 September 2006.

The amendments incorporated into the Railway Transport Act, include, among others:

- The notion of ‘a railway catastrophe’ was replaced by the notion of ‘**a significant accident**’ meaning the accident caused by a collision, derailment of the train or other similar incident:
  - resulting in at least one fatality or at least 5 seriously injured persons or
  - resulting in significant damage to stock, track, other installations or the environment initially assessed by a commission examining the accident at a minimum of €2 million,
  - having an obvious influence on railway safety regulation or safety management.
- New definitions were introduced:
  - **Safety certificate** – document confirming establishment of a system of safety management by the railway company and the fulfilment by it of the safety requirements included in the provisions of community and national law;
  - **Safety authorisation** – document confirming establishment of a system of safety management by the manager and the fulfilment by it of the safety requirements which are indispensable for the safe design, operation and maintenance of the railway infrastructure;
  - **Safety management system** – organisations and activity accepted by the infrastructure manager and the railway company in order to ensure safety;

- **Common safety targets (CST)** – minimum safety levels which should be attained by different parts of the railway system (high-speed trans-European railway system and the normal railway system) and by the system as a whole, expressed as acceptance of risk;
  - **Common methods of measuring safety (CSM)** – methods of evaluating safety for describing the way of assessing safety levels, and how the safety requirements are fulfilled;
  - **Common Safety Indicators (CSI)** – statistical information on railway accidents and incidents, the results of accidents, the technical safety of infrastructure and management of safety.
- The meaning of the following notion was changed:
- **Safety certificate** – document confirming their ability to ensure safe operation of railway traffic and transport by rail, issued for those bodies which are released from the obligation of obtaining a safety certificate and authorisation.

The following provisions concerning safety were added to the amended Railway Transport Act:

- Provision of the Ministry of Transport of 5 December 2006, **concerning the manner of obtaining the safety certificate**;
- Provision of the Ministry of Transport of 12 March 2007 **concerning the conditions and the mode of issuing and withdrawing the safety authorisation, safety certificates and attestations**;
- Provision of the Ministry of Transport of 19 March 2007 **concerning the system of safety management of the railway network**.

Common Safety Indicators (CSI), on which the data in the annual report are based, will be included in the provision of the Ministry of Transport, which is in its final legislative stage.

As the above dispositions were published in 2007, safety management in 2006 was in accordance with the previous binding provisions. In accordance with the resolutions of the latest amendment of the Railway Transport Act, infrastructure managers and railway companies which had safety certificates were obliged to submit an application to the chairman of the RTO (Railway Transport Office) for a safety authorisation or safety certificate by 30 June 2010. The expiry date of the aforementioned safety certificates is 31 December 2010.

The remaining national provisions which are applicable to the contents of this report are stipulated in **Annex D**.

## **C. ORGANISATION**

The National Safety Authority in Poland is the **RAILWAY TRANSPORT OFFICE (RTO)**, which has its registered office at 4 Chałubińskiego St. in Warsaw.

**The chairman of the Railway Transport Office**, as the central administrative authority of the government:

- manages the RTO's activity with the help of two deputy chairmen, a general manager, departmental and office managers, managers of field departments and autonomous work locations;
- represents the RTO to the outside world;
- issues administrative resolutions and decisions.

The responsibilities of the chairman of the RTO include, in particular:

- performing the tasks stipulated in the Railway Transport Act, the Transport of Hazardous Materials Act, the System of Evaluation of Compliance Act and other legal acts;
- conducting activities relating to international cooperation.

Under the chairman of the RTO are, in particular: the deputy chairmen, the Chairman's Office, the Office for International Cooperation and the Confidential Data Protection Officer and the managers of those field departments, which he or she directly supervises.

**The Deputy Chairman of Railway Technology and Safety** is the line manager of: the Department of Supervision of Traffic Operations and Safety, the Department of Technical Permissions and Interoperability and the field departments, in terms of their responsibility for the technical aspects and safety of rail traffic.

**The Deputy Chairman of Railway Market Regulation** is the line manager of: the Department of Railway Transport Regulation and the field departments, with regard to railway market regulation.

The departments and offices of the RTO are managed by managers who report to their managers who supervise their work. The field departments are managed by the departmental managers.

The basic tasks relating to railway safety will be carried out by the RTO departments and field departments below.

**Organisational – Legal Department** – the task of this department is to deal with the RTO's organisation and legal aid cases.

**The Department of Railway Transport Regulation's** task is to:

- grant licences and regulate the railway transport market;
- supervise and regulate access to the railway transport market;
- analyse and monitor the railway transport market;
- budget and charge for access to the railway transport market;
- promote the development of the railway market.

**The Department of Supervision of Traffic Operations and Safety's** task includes:

- supervising the way in which track and stock are operated and maintained;
- initiating activities for improving rail safety;
- checking that the conditions and requirements included in the authorisations, certificates and safety certificates have been fulfilled;
- drawing up a national inventory of railway stock;
- supervising the implementation of post-accident recommendations made by the State Commission for Investigating Rail Accidents;

- submitting claims, organising, coordinating, and carrying out audits on railway safety;
- dealing with the approval of instructions and internal provisions issued by companies, infrastructure managers and users of sidings by the chairman of the RTO, etc.

**The Department of Technical Permissions and Interoperability's** main tasks include:

- processing certification to permit the operation of types of constructions and devices designed for conducting rail traffic and rolling stock;
- participation in the office's internal and external cooperation at national and community level, within the framework of the internal market, in particular, technical harmonisation, accreditation, standards and measures;
- protection of competition in terms of free transport of goods, etc.

**RTO Field Departments**, working within the competences stipulated in the RTO's statute, have the following tasks in particular:

- carrying out checks on the operation of tracks and stock;
- carrying out checks on the required qualifications and proper performance of duties by workers involved in the movement of traffic on the railway lines and workers driving rail vehicles;
- appointing chairmen and members of examining committees for posts related to the movement of traffic on railway lines and driving rail vehicles;
- identifying places with a high risk of accidents and mechanisms which result in danger to the safety of rail traffic and applying to the chairman of the RTO for a decision to stop the traffic or introduce restrictions on the operation of the lines and sidings in the event of such a hazard being identified;
- supervision of the implementation of preventive measures as a result of examination of the circumstances and reasons for railway accidents;
- supervision of safe transport of hazardous products, etc.

The internal organisation chart is shown in **Annex B.1**.

Organisational flow — relationship (diagram) between the National Safety Authorities and other national bodies (such as National Investigation Bodies, National Regulatory Bodies, Ministry of Transport, etc.) is shown in **Annex B.2**.

## **D. THE DEVELOPMENT OF RAILWAY SAFETY**

### **1. Initiatives to maintain/improve safety performances**

The organisation of the system of ensuring railway traffic safety in Poland divides the duties and responsibilities for the aforementioned between railway infrastructure managers, railway companies and users of sidings.

In accordance with Article 5 of the Railway Transport Act of 28 March 2003 (Dz. U. (Official Journal) No 86, item 789 as subsequently amended), the infrastructure manager is responsible for maintaining the railway infrastructure in a condition that ensures safe operation of railway traffic.

Furthermore, in accordance with Article 17 of this Act, the managers, railway companies and users of sidings are obliged to fulfil the technical and organisational conditions ensuring:

- the safe operation of railway traffic; and
- the safe operation of rolling stock.

The most important safety actions undertaken in Poland, in the year covered by this report; as a result of an accident or precursors to accidents, are listed in Table D.1.1. The actions undertaken for different reasons are listed in Table D.1.2.

*Table D.1.1 – Safety measures triggered by accidents/precursors to these*

Safety measure decided	Accidents/precursors which triggered the measure		
	Date	Place	Description of the event
1) Reduction of scheduled speeds (RJ 2006/07) due to the technical condition of the track. 2) Implementation of speed limits for trains due to the poor condition of the track. 3) Replacement of thermally hardened rails. 4) Replacement of tracks and junctions from maintenance and capital resources. 5) Maintenance repair work from operating resources.	2006	The railway network	82 derailments in the infrastructure managed by PKP PLK S.A. as a result of the poor condition of the track (derailments while driving trains and during manoeuvres).
Modernisation of 79 coaches equipped with door locks and central locking.	2005	The railway network	A considerable number connected with embarking and disembarking onto/from a railway vehicle.
Modernisation of 45 electric, multiple unit-sets with the installation of video monitoring, door locks and controls on the engine driver's control desk.	2006	The railway network	A considerable number connected with embarking and disembarking onto/from a railway vehicle.
Withdrawal of composite brake inserts, type LL, made from material FR-502.	19.12. 2005	The Skawina-Żywiec railway line, Żywiec-Jeleśnia route.	Railway accident as a result of a lack of efficient braking.
Increase in the frequency of internal checks, paying particular attention to work discipline, including strict compliance with procedures, based on the Maintenance System Technical Documentation. Furthermore, the missing electromagnets for stopping the train automatically (SHP) were investigated and the those that were defective were replaced.	11.06. 2006	The Warszawa-Kraków railway line, Rożki-Jastrząb route.	Railway accident as a result of the poor condition of a railway carriage and driving a train too fast through a speed-limited section.
The new, uniform system of law enforcement was implemented by the railway company for the perpetrators of accidents.	2006: 04.01; 19.01; 09.03; 12.04; 24.05; 05.06.	Stations: Gorzów Wlkp.; Jaksice; Wołów; Tczew; Kędzierzyn Koźle and the Kruszyna-Sobieszyn route.	Railway accident as a result of ignoring the 'stop' signal.
Replacement of sleepers on a railway viaduct. Increase in the frequency of controls on tracks.	08.11. 2006	Szadok-Poniatowski route.	Railway accident as a result of the poor condition of the track.



Table D.1.2 – Safety measures with other triggers

Safety measure decided	Description of the trigger of the measures
<p>Operating procedure for devices to detect the defective state of rolling stock (dsat) equipped with OK function were implemented as binding for the PKP PLK S.A. manager and incorporated into the 'Rules and regulations for assigning train routes and the use of assigned train routes by licensed railway companies'.</p> <p>The OK function permits elimination of dangers stemming from the use of overloaded trains in relation to the set construction parameters of the track.</p>	<p>In 2006, operational tests of devices were carried out to detect the defective state of rolling stock (dsat) equipped with OK function (examination of track loading, gross weight of a train, correctness of loading goods).</p> <p>Analysis of the acknowledgment level of dsat devices indicated an improvement in the reliability of indicators for the devices, namely:</p> <ol style="list-style-type: none"> <li>1) Hot axle-boxes by 10%.</li> <li>2) Hot brakes by 20%</li> <li>3) Deformation of a wheel running surface, despite not changing the manner of evaluation of the detected wheel defect (e.g. ovalisation, lateral whip, non-uniformity of wheel and pressure diameter).</li> </ol>
Installation of security and alarm systems in the existing railway infrastructure particularly subject to theft and vandalism.	Increase in damage to the contact system due to theft and outside interference.
Increasing informative measures in the mass media, e.g. 'safe level crossing', directed at drivers of road vehicles when driving across railway tracks, aiming at heightening awareness of the danger and the consequences of this on level crossings.	Increase in the number of accidents caused exclusively by drivers of road vehicles because of failure to exercise due care and attention when driving over a level crossing.
Testing modernised locomotive ET-22 (after scrapping the system of metal-rubber supports between the car body and the other cars). Operation since 2005 for passenger and freight traffic without derailments confirms the validity of this modernisation.	Analysis of statistics on derailments concerning locomotives of the ET-22 series.
Reconstruction of the isolated sections of train slowdowns for EON3 units (Pawlowice Górnice station).	Increase in the ineffective results of isolated sections where trains slow down in connection with occurrence of mining damage.
Monitoring of selected electric multiple unit-sets and increasing cooperation with the police and other similar services when undertaking actions in areas in which there is a potential danger to the travellers' feeling of safety.	Analysis of the results of monitoring and the occurrence of threats negatively affecting the travellers' feeling of safety.
<p>The department management made the infrastructure manager of PKP PLK S.A. responsible for:</p> <ol style="list-style-type: none"> <li>1. Preparing and submitting a schedule for the gradual elimination of speed limits on the railway lines.</li> <li>2. Presenting a long-term plan for scrapping obsolete srk units.</li> <li>3. Presenting a modernisation and improvement programme for level crossings and devices to make traffic on level crossings safe.</li> </ol>	The result of a study presented by the chairman of the RTO: 'Assessment of the operation of the railway transport market and the state of safety in 2006' in accordance with Article 7 of the Railway Transport Act.
<p>The department management required PKP CARGO S.A. to:</p> <ol style="list-style-type: none"> <li>1. Prepare a programme for the gradual reduction of the average age of railway vehicles and for scrapping obsolete rolling stock.</li> <li>2. Present a schedule for modernising the railway vehicles used, in particular locomotives type EP 09 and ET 22.</li> </ol>	The results of a study presented by the chairman of the RTO: 'Assessment of the operation of the railway transport market and the state of safety in 2006' in accordance with Article 7 of the Railway Transport Act.
The correct preparation of an annual report and the employment of an adviser on transporting hazardous goods.	Analysis of annual reports on the performance of the organisations involved in the transport of hazardous goods and audits of involved enterprises by the RTO.

<p>In the PKP PLK S.A., a Main Inspectorate of Railway Traffic Safety was set up on 8 February 2006, which was appointed the tasks of:</p> <ul style="list-style-type: none"> <li>– specialist control and temporary technical supervision of railway traffic safety;</li> <li>– coordination of tasks and preventive actions in relation to railway traffic safety;</li> <li>– preparing draft laws, preparing instructions and making decisions on the safety of railway traffic, etc.</li> </ul>	
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## 2. Detailed data trend analysis

The official evaluation of railway traffic safety is the number of railway accidents that have occurred and the number incidents relating to train operations, expressed in train-kilometres (train\*km).

In accordance with the disposition of 28 June 2005, concerning accidents and catastrophes, the rules on the classification of accidents scrapped the division into train and manoeuvre accidents and scrapped train incidents without consequences, e.g. ignoring the 'stop' signal or routing a train onto a busy track, as long as there was no collision or derailment. The concept of an incident and the obligation to register an incident were introduced.

Accidents were defined, in particular, as follows:

- collisions,
- derailments,
- events on level crossings,
- events involving people, caused by a railway vehicle in motion,
- fire in a railway vehicle,
- other events.

A railway catastrophe is regarded as a serious accident, in which there were human victims or material losses exceeding the equivalent of €50 000.

In the Railway Transport Act (amended on 21 August 2006) currently in force, there is no notion of a 'railway catastrophe' – it is replaced by the concept of a 'significant accident'.

An analysis of the events that occurred in 2006 showed that the main reasons for accidents are, among others:

- carelessness by drivers of road vehicles on level crossings – accidents generally caused by the human factor;
- technical defects in the track structure;
- technical defects in the railway vehicles.

With reference to defects in the infrastructure and railway vehicles, the main problem is the lack of material resources needed for modernisation and the necessary investment in them. Moreover, in accordance with the new definition of accident, accidents are also events which occur during manoeuvres including premature executing the train's manoeuvre or switching points under a rolling stock, in which the human factor is to blame.

The overall number of accidents that occurred and their effects in 2006 is as follows:

- the number of accidents – 840;
- the number of significant accidents – 81;

- the number of incidents – 1611;
- the number of fatalities – 266;
- the number of injured persons – 287;
- the number of working hours lost as a result of accidents – 3 084.5 hours;
- the number of subcontractors' hours lost as a result of accidents – 321 hours;
- the cost of all accidents – PLZ 17 329 243 / €4 523 189.

In 2006, out of the total of 840 accidents, the majority (48.6%) were events involving people caused by a railway vehicle in motion.

Collisions and fire are a small proportion – 1.9% and 0.6%, respectively, of the total number of accidents.

Meanwhile, in terms of significant accidents, the vast majority are events on level crossings – 91.4%. Collisions and derailments account for 3.7% and 4.9%, respectively, of the total number of significant accidents.

The first year for which data are available in the report is 2006. From next year onwards, it will be possible to look at trends in railway traffic safety.

However, some phenomena have stood out in internal studies up to now.

Thus, accidents caused by technical defects in the track structure in 2005 constituted 13% of all accidents (excluding events involving people), and in 2006 – 11%.

The proportion of accidents caused by technical defects in powered vehicles rose considerably – from 3% in 2005 to 8% in 2006 but the proportion of accidents caused by technical defects in undriven rolling stock fell slightly – from 7% in 2005 to 5% in 2006.

In the year-on-year statistics (2006 / 2005), accidents caused by technical defects in the track structure constituted 111.8%, technical defects in powered vehicles – 371.4%, technical defects in undriven rolling stock – 83.3%, on level crossings – 121.3%.

With reference to significant accidents, the breakdown is as follows: accidents caused by technical defects in undriven rolling stock – 200% and on level crossings – 89.1%.

There was a considerable increase in the number of accidents on railway-road intersections in 2006. Derailments and events on level crossings accounted for 23.2% and 25.7%, respectively, of the total number of accidents.

The good news is that there was a simultaneous decline in the number of victims of these accidents. This is confirmed by the very high accident rate on level crossings of category C – equipped with a warning light and sound signalling devices – and category B – equipped additionally with half-carriage-way width gates. This shows a complete disregard of the Highway Code by the drivers of road vehicles.

Traditionally, the largest number of accidents has taken place on category D level crossings. The largest number of victims was on these level crossings.

The number of railway accidents results from the volume of transport operations carried out, the density of rail traffic, and efficiency of the rail network in operation, and is described by the **safety indicator, i.e. the number of accidents occurring in 1 mln train\*km.**

**The average national safety indicator for 2006 in the rail network in Poland is:**

**921 accidents and significant accidents / 960.5 mln train\*km of freight and passenger transport = 0.95 accidents/mln train\*km**

The breakdown of railway accidents, victims and resulting costs is shown in **Annex C.**

#### **E. THE DEVELOPMENT OF SAFETY CERTIFICATION AND AUTHORISATION**

In accordance with Article 2, paragraph 1 and Article 3, paragraph 1 of the Act of 22 July 2006 on the amendment to the Railway Transport Act (Official Journal No 144, item 1046), safety managers and railway companies with safety certificates were obliged to apply for the issue of a safety authorisation or safety certificate to the chairman of the RTO, within 18 months of the Act coming into force, namely by 11 March 2008.

In accordance with the provisions of Article 4, paragraph 2 of the aforementioned Act, the safety certificates issued to the above managers or companies before the day the Act came into force remain valid for the period for which they were issued, but no longer than 22 months.

In 2006, no applications were submitted for safety authorisations or certificates. The relevant bodies had current safety certificates.

On 7 September 2007, the Polish Parliament made another amendment to the Railway Transport Act, requiring safety managers and railway companies to make an application to the chairman of the RTO for safety authorisations or certificates by 30 June 2010. This deadline ensues from the provisions of Article 6(8) of Commission Regulation (EC) No 653/2007 of 17 June 2007 on the validity of safety certificates.

#### **F. SUPERVISION OF RAILWAY COMPANIES AND INFRASTRUCTURE MANAGERS**

##### **1. Description of the supervision of railway companies and infrastructure managers**

The Railway Transport Office, as a National Safety Authority, supervises the railway companies and infrastructure managers. As part of this supervision, the chairman of the RTO carries out audits/inspections.

The method of carrying out inspections was stipulated by the Minister of Transport, in the order of 12 March 2007 on the method of carrying out inspections by the chairman of the RTO (Dz. U. (Official Journal) No 57, item 388).

Inspections are carried out by employees of the Railway Transport Office, on the basis of a written authorisation to carry out an inspection issued by the chairman of the RTO.

Audits are performed in the presence of employees of the unit being audited who are appointed by the manager of the unit being audited or a person authorised by him or her after a licence and authorisation for the audit have been produced.

The auditor determines the factual situation, based on the evidence collected.

The outcome of the audit is presented in the audit report.

The evaluation of the performance of the unit being audited, based on the results included in the audit report, is presented in a post-inspection presentation. In the event of irregularities being claimed, conclusions are drawn and comments made together with a deadline for rectifying the irregularities, at the post-inspection presentation.

## 2. Inspections carried out in 2006

In 2006, the following controls (inspections) were carried out by employees of the Railway Transport Office on the state of railway safety:

- 125 inspections of infrastructure managers,
- 162 inspections of railway companies,
- 131 inspections of users of railway sidings.

During inspections, checks were carried out, inter alia, on:

- the possession of certificates permitting the use of the type of constructions and devices intended for operating railway traffic and certificates permitting the use of the aforementioned type of railway vehicles;
- the possession of certificates showing the technical efficiency of railway vehicles used;
- the existence of internal provisions, stipulating the rules and requirements for the safe operation of railway traffic and maintenance of the railway infrastructure;
- the fulfilment of conditions stipulated in the provisions by employees in positions directly connected with operating railway traffic and its safety.

As part of the tasks involved in supervision of the assessment of compliance of the materiel intended for use in the railway infrastructure related to operating rail traffic and traffic safety and the transport of passengers and goods and use of rolling stock, 193 inspections for compliance of materiel used in the railway system were carried out.

In the inspections carried out in 2006, 87 employees of the Railway Transport Office were involved, i.e. 53% of the total workforce. The economic aspects (costs) of the inspections amounted to PLZ 232 000 (€60 555).

## 3. Summary of the relevant corrective measures/actions (amendment, revocation, suspension, important warning, etc.) related to safety aspects following these audits/inspections

A summary of the results of checks (inspections) of railway managers and companies, carried out by RTO employees was made in conferences organised by RTO management. Current

traffic safety issues are considered and how to implement rail safety were discussed, among other things:

- implementation of recommendations and conclusions of post-accident commissions, aimed at preventing the occurrence of events in the future or minimising the consequences of these;
- fulfilling safety certificate criteria by companies and managers.

During the inspections, no direct threat to traffic safety was observed, nor any threat to the transport safety of people and goods within the network, as a result of which concrete actions must have been taken, such as to:

- stop railway traffic or restrict it on railway lines;
- prevent railway vehicles from being used or restrict their use.

The auditors recommended restricting the use of locomotives ST43 and ET22.

## **G. CONCLUSIONS – PRIORITIES – RESULTS OF SAFETY RECOMMENDATIONS**

Safety recommendations:

### **2. Railway infrastructure:**

- 1.1. increasing the number of major and current repairs of tracks and junctions;
- 1.2. speeding up the replacement of thermally machined rails;
- 1.3. the main infrastructure manager, PKP PLK S.A., should draw up a schedule for scrapping speed limits and present it to the Department's Management and strictly supervise its implementation.

### **3. Devices controlling railway traffic:**

speeding up the pace of implementation of modern systems of controlling railway traffic; increasing the number of repairs to devices controlling railway traffic by replacing and supplementing the sub-assemblies, thus improving operation.

### **4. Railway vehicles:**

- reducing the average age of railway vehicles that are being used by withdrawing from use the vehicles with the greatest amount of use and purchasing new ones;
- speeding up the modernisation of the railway vehicles used, in particular locomotives ET22 and EP09;
- improvement in the quality of the regular inspections;
- increasing supervision of the quality of repairs by means of the urgent appointment of a group of Repair Acceptance inspectors which would be independent of the companies.

### **5. Level crossings:**

- 4.1. speeding up the pace of modernisation to improve the technical condition of level crossings and devices on these crossings;
- 4.2. marking particularly dangerous level crossings with information tables showing the number of accidents and the number of people killed and injured on this level crossing.

### **6. Transport of hazardous materials:**

- 5.1. implementation of action for the proper installation of tracks at all designated railway stations, for the emergency removal of wagons carrying dangerous materials;
- 5.2. initiating legislation aimed at permitting the imposition of administrative fines by administrative decision, in the event of violation of binding rules covering such cases of transport.

Work is in progress on the amendment of national provisions in the following matters:

- appointing a group of Repair Acceptance Inspectors, who are independent of companies, which will help improve the quality of inspection of and repairs to rolling stock;
- stipulating the method of supervision and sanctions by the chairman of the Railway Transport Office vis-à-vis the users of railway sidings in the event of a serious threat to rail traffic safety;
- general technical conditions for the use of railway vehicles;
- technical conditions for road-railway intersections;
- stipulating the method of supervision and sanctions by the chairman of the Railway Transport Office vis-à-vis the economic bodies which transport dangerous goods in the event of declaration of a serious threat to transport safety.