

# **Austria**

## **Annual report 2008 by the National Safety Authority for the 2007 reference year**

in accordance with Article 18 of Directive 2004/49/EC of 29 April 2004 (OJ L 164 of 30 April 2004) (Railway Safety Directive), transposed under Section 13a of the Austrian Railways Act 1957, Federal Law Gazette No 60/1957, as amended in Federal Law Gazette I No 125/2006

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### **A.1. Scope of report**

The following annual report within the meaning of Directive 2004/49/EC of 29 April 2004 (OJ L 164 of 30 April 2004) (Railway Safety Directive) covers the work of the National Safety Authority (NSA) in connection with the operation of mainline and networked secondary line railways, the operation of rail vehicles on such railways and traffic on such railways for the 2007 reference year in Austria.

### **A.2. Summary**

In Austria general duties for railway undertakings and infrastructure managers are laid down in the Austrian Railways Act (*Eisenbahngesetz* 1957), published in the Federal Law Gazette (*Bundesgesetzblatt* (BGBl)) No 60 as last amended in BGBl I No 125/2006. The detailed regulations of railway undertakings concerning training and the behaviour of staff concerned with safety critical tasks are subject to authorisation by the Railway Authority.

Starting on 01.01.2006 the Federal Accident Investigation Bureau (*Unfalluntersuchungsstelle* (UUS)), as the national investigation body pursuant to the regulations in the Accident Investigation Act (*Unfalluntersuchungsgesetz*), published in BGBl I No 123/2005, started work as an independent body pursuant to Article 21 of the Safety Directive concerned with the investigation of accidents/Incidents.

Safety Indicators relating to accidents, incidents and near-misses, to technical safety of infrastructure and its implementation are collected by the UUS.

Safety performance at Member State level is monitored at different levels e.g. by approval processes for subsystems, maintenance rules and by accident and incident investigations. Railway undertakings and infrastructure managers have to fulfil obligations for periodical checking, reviewing and inspections as well as internal controls. Furthermore, safety performance is individually checked on the occasion of specific incidents.

Authorisation of subsystems for putting into service, control of the operation of railway undertakings and infrastructure managers, supervision of the compliance of technical equipment, authorisation for the bringing into service of new or substantially altered rolling stock and monitoring, promoting and developing the safety regulatory framework are carried out by the Federal Ministry of Transport, Innovation and Technology as the NSA, notwithstanding the general responsibility of the railway

undertakings and infrastructure managers themselves.

The amendment to the Austrian Railways Act came into force on 27 July 2006 and implemented the Safety Directive and [endowed] the Federal Ministry of Transport, Innovation and Technology with the functions of the National Safety Authority.

Publication of existing, new or updated national safety rules is managed on the website of the Federal Ministry of Transport, Innovation and Technology which is the NSA (<http://www.bmvit.gv.at/en/verkehr/railway/index.html>)

The annual report of the safety authority in Austria concerns its activities in the year 2007 pursuant to the Directive on safety on the Community's railways (2004/49/EC, 'Safety Directive').

The report contains global information on the railway system in Austria shown in Parts A, B and C and also shown in the related annexes.

Safety recommendations as a result of investigation accidents, incidents and near-misses during the reporting year are enumerated in Part D. With respect to the summary of the Common Safety Indicators (CSI) in Annex C, it should be mentioned that the analysis of the CSI was difficult, because e.g. railway undertakings don't record some Indicators according to the Safety Directive.

Part E reports important changes in legislation and regulation concerning railway safety in the year 2007.

The development of safety certification and safety authorisation is shown in Part F. Annex E refers to safety certifications.

A description of results of and experience relating to the supervision of infrastructure managers and railway undertakings is given in chapter G.

## **B. Introduction**

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

The National Safety Authority within the meaning of the Railway Safety Directive was set up in order to support the creation of a uniform railway system in the Community and was entrusted with the task of guaranteeing uniform safety regulations for specialised cross-border infrastructures.

In order to make it easier to evaluate the achievement of common safety targets (CST) and track general developments in rail safety, the Member States collate information on common safety indicators (CSI) in the annual reports by the safety authorities.

The legal basis for the annual report is Article 18 of Directive 2004/49/EC of 29 April 2004 (OJ L 164 of 30 April 2004) (Railway Safety Directive), transposed under Section 13a of the Austrian Railways Act 1957, Federal Law Gazette No 60/1957, as amended in Federal Law Gazette I No 125/2006:

#### **‘Annual report**

**Section 13a.** (1) *The Federal Minister of Transport, Innovation and Technology shall draft an annual report on its activities in the previous year in connection with the operation of mainline and networked secondary line railways, the operation of rail vehicles on such railways and traffic on such railways. The annual report shall be published on the website of the Federal Ministry of Transport, Innovation and Technology and notified to the European Railway Agency by no later than 30 September of the calendar year following the year under review.*

(2) *The annual report shall contain information on:*

- 1. an aggregation of common safety indicators in accordance with Annex I to Directive 2004/49/EC;*
- 2. important changes to federal laws and Ordinances issued on the basis of federal laws regulating the construction or operation of the railways referred to in paragraph 1, the operation of rail vehicles on such railways and traffic on railways;*
- 3. the development of safety certification and safety authorisation;*
- 4. results of and experience relating to the supervision of infrastructure managers and railway undertakings.*

The annual report within the meaning of the Directive is based on the evaluation of data in accordance with Section 13a(3) by the Federal Accident Investigation Bureau:

*Section 13a (3) The National Investigating Body (Section 3 of the Austrian Accident Investigation Act, Federal Law Gazette I No 123/2005) shall provide the Federal Minister of Transport, Innovation and Technology with the data needed in order to compile the common safety indicators for the year under review in electronic format by no later than 30 June of the calendar year following the year under review.'*

and on evaluations of safety reports in accordance with Section 39d of the Austrian Railways Act:

### **Safety report**

*Section 39d. Each year railway undertakings established in Austria and infrastructure managers established in Austria shall submit a safety report to the authorities before 30 June concerning the preceding calendar year. This report shall contain the following:*

- 1. information on how corporate safety targets were met;*
- 2. the Austrian and common safety indicators, as far as is relevant to the individual railway undertaking;*
- 3. the results of internal safety auditing;*
- 4. information on deficiencies and malfunctions that affected the safety of the operation of the railway, the operation of rail vehicles on the railway or traffic on the railway.*

The annual report is prepared on the basis of the documents of the European Railway Agency:

- Template - Structure for the content of the NSA Annual safety Report
- Guideline for the use of the template - Structure for the content of the NSA Annual Safety Report

## **2. Information on the structure of the railway network**

- map of the railway network (Annex A.1)
- list of railway undertakings (RU) and infrastructure managers (IM) (Annex A.2)

## **3. Résumé – General trend analysis**

The following is an aggregate presentation of the trend in the common safety indicators over the years 2006 and 2007, to the extent that this is possible based on the available data.

Data collection relating to the common safety indicators (CSI) proved to be difficult in some instances. In many cases, for example, the indicators relating to the consequences of accidents (costs, time lost) were not recorded in accordance with the Directive or there was still no clear differentiation of the data to be collected. Details are shown in the individual tables in Annex C.1.

The accident figures for the 2006 year include all accidents on mainlines and secondary line railways. From 2007 onwards only serious accidents in accordance with Regulation (EC) No 91/2003 as most recently amended by Regulation (EC) No 1192/2003 have been listed. As a result it has been impossible to perform a trend analysis for want of comparable data of equal standing.

The total number of fatalities increased from 46 to 52 between 2006 and 2007. The number of injuries fell from 76 in 2006 to 60 in 2007. The total for fatalities and injuries exhibited a downwards trend (2006: 122, 2007: 112).

The most significant components of the total for fatalities and injuries were the following categories: Users of Level Crossings and Trespassers on Rail Installations.

The indicators relating to safety management are not yet relevant for the reference 2007, since in this reference year no safety management system of a railway undertaking had yet been certified within the meaning of the Directive.

## **C. Organisation**

### **1. Introduction**

#### **The National Safety Authority in respect of safety certification and safety authorisation in the year 2007<sup>1)</sup>:**

(for mainline railway infrastructure undertakings and rail traffic undertakings entitled to run trains on mainline and networked secondary line railways):

Federal Ministry of Transport, Innovation and Technology (BMVIT)  
Department IV / Rail Group  
Radetzkystraße 2,  
A-1030 Vienna  
Tel.: +43-1-71162-652000  
Fax: +43-1-71162-652099  
Website: **[www.bmvit.gv.at](http://www.bmvit.gv.at)**

Precise rules governing the jurisdiction of the authorities in the form of the Federal Minister of Transport, Innovation and Technology are contained in Section 12(3) of the Austrian Railways Act 1957.

#### **Other safety authorities:**

(for railway infrastructure undertakings which only operate networked secondary lines, the authority in each of the nine Federal *Länder* is the governor of the *Land* in question):

Governor of Burgenland, Landhaus,  
Landhaus,  
A-7000 Eisenstadt

Governor of Burgenland, Kärnten,

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<sup>1)</sup> Since 11 July 2008 the Federal Ministry of Transport, Innovation and Technology (BMVIT) has had a new business organisation: <http://www.bmvit.gv.at/ministerium/aufgaben/organisation.html>



Arnulfplatz 1,  
A- 9021 Klagenfurt

Governor of Lower Austria,  
Landhausplatz 1,  
A-3109 St. Pölten

Governor of Upper Austria,  
Klosterstrasse 7,  
A- 4020 Linz

Governor of Burgenland, Salzburg,  
Chiemseehof,  
A-5010 Salzburg

Governor of Steiermark,  
Burg,  
A-8011 Graz

Governor of Tyrol,  
Landhaus,  
A-6020 Innsbruck

Governor of Burgenland, Vorarlberg,  
Landhaus,  
A-6900 Bregenz

Governor of Vienna,  
Rathaus,  
A-1082 Vienna

Precise rules governing jurisdiction of the authorities in the form of Governors are contained in Section 12(2) of the Austrian Railways Act 1957.

**Labour supervisory authorities:**

Federal Ministry of Transport, Innovation and Technology (BMVIT)  
Department IV / Traffic Labour Inspectorate Group  
Radetzkystraße 2,  
A-1030 Vienna  
Tel.: +43-1-71162-654500  
Fax: +43-1-71162-654499  
Website: **[www.bmvit.gv.at](http://www.bmvit.gv.at)**

**Federal Accident Investigation Bureau:**

A Rail Section was set up at the Federal Accident Investigation Bureau pursuant to Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004 (Railway Safety Directive) for the independent investigation of accidents and malfunctions on the railways (for organisation chart, cf. Annex B.2):

Bundesanstalt für Verkehr (Federal Office of Transport)  
Accident Investigation Rail Section  
Lohnergasse 9  
A-1210 Vienna  
Tel.: +43-1-27760-7500  
Fax: +43-1-27760-9298  
e-mail: **[uus-schiene@bmvit.gv.at](mailto:uus-schiene@bmvit.gv.at)**  
Website: **<http://versa.bmvit.gv.at>**

The legal basis is contained in the Austrian Accident Investigation Act (Federal Law Gazette I No 123/2005) and the Railway Reporting Ordinance 2006 (Federal Law Gazette No 279/2006).

The Reporting Ordinance regulates:

***Section 1.** ... the scope and form of reports of accidents and malfunctions which occur during the operation of mainline and secondary lines (Section 4 of the Austrian Railways Act 1957, Federal Law Gazette No 60), branch lines (Section 7 of the Austrian Railways Act 1957, Federal Law Gazette No 60) or streetcars using their own permanent way, such as underground railways (Section 5 (1) No 2 of the Austrian Railways Act 1957, Federal Law Gazette No 60), or during the operation of rail vehicles on such railways.*

**Rail regulator:**

SCHIENEN-CONTROL KOMMISSION (SCG)  
ÖSTERREICHISCHE GESELLSCHAFT FÜR  
SCHIENENVERKEHRSMARKTREGULIERUNG MBH  
Frankenberggasse 9/5  
A-1040 Vienna  
0043-1-5050707-0 Fax: 0043-1-5050707-17  
Website: **www.scg.gv.at**

SCG is the Austrian rail regulator within the meaning of Article 20 of Directive 2001/14 and was set up in 1999 under the Austrian Railways Act.

**2. Organisation charts**

No organisational changes took place during the reference year 2007 within the Federal Ministry of Transport, Innovation and Technology's National Safety Authority and the Federal Office of Transport.

## **D. Development of rail safety**

### **1. Initiatives to maintain and/or improve safety**

The most important safety recommendations issued in the year under review (2007) are listed below:

*Table D.1.1 – Safety recommendations based on accident/precursors*

<b>Accident/precursor resulting in recommendation</b>			<b>Safety recommendation<sup>2)</sup></b>
<b>Date</b>	<b>Place</b>	<b>Description of incident</b>	
09.05.06	Kärnten, Villach	<b>Derailment</b> Train 48246	<ul style="list-style-type: none"> <li>• Regular maintenance of the entire track should be undertaken, with due regard for existing standards or upkeep and maintenance plans, and also taking into account the findings of the metallographic investigation.</li> <li>• The existing standards for the thermite welding process are to be checked to ensure they are up to date and adapted if required.</li> <li>• Thermite welds must be performed in observance of the attendant quality assurance measures (e.g. approved superstructure welding technicians, etc.).</li> </ul>
19.07.06	Burgenland, Parndorf	<b>Collision</b> Train 44642	<ul style="list-style-type: none"> <li>• Inspection and evaluation of the wagon take-up process.</li> <li>• Check and evaluate the working methods for engineering inspections of rolling stock (safety checks, and so on) with regard to securing freight.</li> <li>• Drafting of clear and comprehensible work instructions for employees on the basis of the results of the evaluations carried out.</li> <li>• Drafting of a clear and comprehensible instruction (operating regulation, explanation) on the behaviour of locomotive drivers in the event of a sudden loss of voltage from the overhead line, taking into account the available means of communication.</li> </ul>
31.08.06	Vienna, Stadlau	<b>Derailment</b> Train 68146	<ul style="list-style-type: none"> <li>• ÖBB-Infrastruktur-Betrieb AG decreed that in addition to periodic investigations with the track recording car, the actual track area is to be inspected on foot by an employee of the ÖBB-ISC. According to the requirements of the upkeep plan, all tracks of category 'a' are to be inspected every 2 months by the</li> </ul>

<sup>2)</sup> The safety recommendations of the UUS existing as at the time of the report are listed, but these do not yet constitute adopted safety measures.

Accident/precursor resulting in recommendation			Safety recommendation <sup>2)</sup>
Date	Place	Description of incident	
			district inspector. This inspection can be replaced by an inspection on foot. In addition, during both regular maintenance and inspections according to the upkeep plan, particular attention should be paid to whether an overhaul of the bed is necessary on the basis of the geological conditions.
28.09.06	Vienna, Altmannsdorf	<b>Collision</b> Train 346	<ul style="list-style-type: none"> <li>Urgent awareness-raising among or retraining of employees about the rules concerning preparations for transfer trips and the permitted maximum speeds during shunting in accordance with ÖBB DV V3 ('Operating Procedure')</li> <li>Review of the rules for transfer trips of ÖBB DV V3 ('Operating Procedure')</li> </ul>
04.10.06	Steiermark, Hieflau	<b>Derailment</b> Train 63637	<ul style="list-style-type: none"> <li>Random checks of inspections or overhaul of rail vehicles (e.g. also comparison of documents on periodic inspection with the vehicles)</li> <li>Inspection of workshops for permission to inspect and overhaul rail vehicles</li> <li>Retrofitting of vehicles with buffer head(s) &lt; 400 mm to buffer head(s) ≥ 400 mm</li> </ul>
18.10.06	Tirol, Kirchberg	<b>Collision</b> Train 5276 with track construction crane	<ul style="list-style-type: none"> <li>Reassess the cranes of type KRC 1200 approved for use in Austria with regard to the functionality of the safety equipment, control and execution of technical modifications. In particular, the working order of the live ring brake should be integrated into the control logic and monitored by this in cranes of type KRC 1200 and the like. This is to rule out any automatic movement of the counterweight. The stability of the crane is thus guaranteed, and the restriction of the clear space over neighbouring tracks prevented. From the point of view of AIB Tracks and in accordance with the existing statutory provisions, the technical securing of the live ring brake is to be preferred to an organisational measure. The modification of track building crane SK1 X 980.009-5 of type KRC 1200 implemented by the manufacturer with respect to the display of the angle of the counterweight, together with the acoustic device when the limit angle position is exceeded, is viewed as an immediate measure. The crane driver mainly controls the crane by sight. In so doing, he has to take account of the load moved, the set-down point of the load, any employees in the set-down area and the hand signals of a marshal. Due to the sequence of operations it is difficult while lowering the load to always pay attention to the readout of a display which acts as a support for raising the crane. The acoustic warning device is at best an additional aid, but in no way an additional safety device, as it may not be possible to hear the acoustic warning signal due to the noise of the construction site..</li> <li>The crane driver's steering in the opposite direction if the counterweight's permissible angle of rotation is exceeded can only be considered an emergency measure. Since the movement of the counterweight is determined purely by the control logic, the crane driver can only steer in the opposite direction indirectly via the jib. In the case of a roped-up load that has not been raised, it is impossible to steer in the opposite direction via the jib. The only option available to the operator is to shut off the power to all components of the crane, and therefore</li> </ul>

Accident/precursor resulting in recommendation			Safety recommendation <sup>2)</sup>
Date	Place	Description of incident	
			<p>the live ring brake too, using the 'emergency stop', in order to stop the counterweight..</p> <ul style="list-style-type: none"> <li>Where track building cranes are scheduled to be used, it should be established that the provisions of ÖBB ZOV 7 are to be applied analogously to the clear space as well as to the lateral spaces. Apart from the clearance gauge, 2000 mm outwards from the centre of the track, the side spaces, 2500 mm outwards from the centre of the track (according to the loading gauge 'A-B' in accordance with Figure 20), must also in principle be left clear.</li> <li>Lifting operations and transport of loads on the crane jib of a track construction crane must be considered as a further non-calculable source of danger. The effects of the weather, such as gusts of wind, or a break in the reeving line could result in the raised or transported load ending up in the clearance of the adjacent track, without it being possible for the crane team to safely prevent this. In this case, on safety grounds, it would seem advisable to halt traffic on the adjacent track during a loading operation, and during lifting, setting down or transport operations on the crane jib not to allow any journeys on the adjacent track, if it is not possible to safely prevent the load being lifted from entering the clearance gauge of the adjacent track.</li> <li>Draw up operating instructions for performing construction work with a clear division of responsibilities and powers.</li> <li>Harmonise the definitions (such as Local Supervisor, Safety Inspectorate, Construction Site Inspectorate, etc.) in the ÖBB DV, guides and instructions with the terms used in the statutory regulations (such as Railways Act, Railways Regulation, Railway Employee Protection Regulation, Employee Protection Act, Construction Worker Protection Regulation, etc.)</li> <li>Random inspections of the completion of construction work in situ are to be carried out by the railway undertaking or by the competent supervisory authority.</li> </ul> <p><b>Safety recommendation of 20 October 2006 in the form of an urgent measure (see point 9) with GZ.BMVIT-795.037/0001/II/BAV/UUB/SCH/2006:</b></p> <p>While working in the vicinity of tracks with track building crane X 980.009-5, no journeys should be permitted within the slewing range of the crane.</p> <p>Work using track building crane X 980.009-5 is to be stopped before allowing journeys within the slewing range. The safety recommendation was issued to:</p> <ul style="list-style-type: none"> <li>the general management of ÖBB-Infrastruktur Betrieb AG</li> <li>the general management of ÖBB-Infrastruktur Bau AG</li> <li>Swietelsky Baugesellschaft mbH. in Fischamend</li> </ul> <p>This safety recommendation (GZ.BMVIT-795.037/0001/II/BAV/UUB/SCH/2006) is withdrawn with all instructions, since it has been integrated into safety recommendation GZ.BMVIT-795.037/0002/II/BAV/UUB/SCH/2006.</p> <p><b>Safety recommendation of 10 November 2006 with GZ.BMVIT-795.037/0002/II/BAV/UUB/SCH/2006:</b></p> <ul style="list-style-type: none"> <li>Following the findings of the investigation of 8 November 2006,</li> </ul>

Accident/precursor resulting in recommendation			Safety recommendation <sup>2)</sup>
Date	Place	Description of incident	
			<p>the safety recommendation was extended to all cranes of identical construction of type KIROW KRC 1200. While working in the vicinity of tracks with track building crane of type KIROW KRC 1200, no journeys should be permitted within the slewing range of the crane. Work using track building crane X 980.009-5, 980.011-1 and 8455 9892 200-1 is to be stopped before allowing journeys within the slewing range.</p> <p>The safety recommendation was issued to:</p> <ul style="list-style-type: none"> <li>- the general management of ÖBB-Infrastruktur Betrieb AG</li> <li>- the general management of ÖBB-Infrastruktur Bau AG</li> <li>- Swietelsky Baugesellschaft mbH. in Fischamend</li> <li>- Bahnbau Wels (operator of a crane of identical construction)</li> </ul>
09.11.06	Kärnten, Villach	<b>Collision</b> Train 4856 with train 67510	<ul style="list-style-type: none"> <li>• It is recommended that the optical display for the status of the intermittent automatic train control device on the traction unit (traction unit with blue lamp in the driver's cab) be optimised. In an initial step, according to the use being made and bearing in mind the residual service life of the traction unit, the optimisation should be performed in particular on those traction units which are in repeated two-way use for shunting and hauling. Then on the remaining traction units the display for the status of the intermittent automatic train control device should be improved accordingly.</li> </ul>
11.11.06	Upper Austria, Linz	<b>Derailment</b> Train 92517	<ul style="list-style-type: none"> <li>• Raise awareness among locomotive drivers of all RUs operating in Austria on the subject of non-acknowledgement with the vigilance button.</li> <li>• A further safety recommendation no longer applies by virtue of the entry into force of the new provisions of Section 27 of the ÖBB DV V 3, Operating Procedure, relating to the brake setting to be applied according to the type of train and weight of the train set, on 10 December 2006.</li> </ul>
25.11.06	Steiermark, Fentsch-St. Lorenzen	<b>Endangering</b> of train EC 531	<ul style="list-style-type: none"> <li>• Interrupt or prohibit work (maintenance and fault clearance) in the area of control desks on Siemens VGS 80 safety systems during an operator action to set a route for journeys (implemented at ÖBB-Infrastruktur Betrieb AG on 01.12.2006).</li> <li>• Instruction / information to operators of Siemens VGS 80 push-button geographical circuitry on the absolute need to follow instructions on a touch control of at least 2 seconds. (Implemented at ÖBB-Infrastruktur Betrieb AG on 01.12.2006)</li> <li>• Drafting of a system-related risk analysis in conjunction with the manufacturer, including any remaining up-times of signal boxes with push-button geographical circuitry, to be used as a basis for a technical improvement to prevent incorrect on the basis of a 3-touch control (e.g. incorporation of additional protective circuits).</li> </ul>
07.12.06	Lower Austria, Melk	<b>Collision</b> Train 2082	<ul style="list-style-type: none"> <li>• Clear specification of processes for the planning and completion of construction work, in particular in connection with responsibilities and powers.</li> <li>• Instruction of employees regarding the provisions of ÖBB DV V3 <ul style="list-style-type: none"> <li>a) Keeping of operational documents</li> <li>b) Block on through tracks (Diversion/rerouting)</li> </ul> </li> </ul>



Accident/precursor resulting in recommendation			Safety recommendation <sup>2)</sup>
Date	Place	Description of incident	
			<ul style="list-style-type: none"> <li>c) Instruction of employees regarding the provisions of ÖBB DB 601</li> <li>d) Keeping of the Advice of Work in Progress (BETRA) / Event checklists</li> <li>e) BETRA requests</li> <li>f) Distribution of BETRAs</li> <li>• Random inspections (e.g. telephone log, operating log, etc.) by the railway undertaking or the competent rail supervisory authority. Irregularities are to be recorded and appropriate measures put in place.</li> <li>• Guaranteeing the timely distribution of BETRA emissions and verification of the accuracy of the information.</li> <li>• Random inspection of the completion of construction work in situ by the railway undertaking or the competent rail supervisory authority. Irregularities are to be recorded and appropriate measures put in place.</li> <li>• Ensuring observance of the Working time Act by the railway undertaking or the competent rail supervisory authority. Irregularities are to be recorded and appropriate measures put in place.</li> <li>• Guaranteeing of construction site evaluation under Sections 4 and 5 of the Employee Protection Act by the employer.</li> </ul>
29.12.06	Vorarlberg, Lochau	<b>Collision</b> Train EC 196	<ul style="list-style-type: none"> <li>• Removal of contradictions in competences to handle an emergency/extraordinary event between emergency leader and the traffic manager. Clear work instructions are to be produced for the emergency leader and his competences and responsibilities set down. This is to be communicated to all station inspectors in suitable form.</li> <li>• ÖBB-Infrastruktur Betrieb AG is to draw up a general instruction for such deployments of non-rail third parties in track danger areas straight away. This instruction must specify the measures according to the principles of risk prevention (Section 7 of the Employee Protection Act). Similarly, the responsibilities for implementing the measures are to be clearly specified and employees continuously informed of these. When establishing protective measures, the principles of risk prevention as summarised in Section 7 of the Employee Protection Act are to be observed. As regards track danger areas, these principles are also to be enshrined in the provisions of Section 26 of the Railway Employee Protection Regulation. It follows therefrom for specific cases:</li> <li>• Where possible, a derailing stop is to be put in place (cf. Section 7(1) of the Employee Protection Act - Avoiding risks, Section 7(3) of the Employee Protection Act - Tackling dangers at source, Section 7(6) of the Employee Protection Act - Eliminating or reducing dangers, cf. also the identically worded ruling of Section 26(2) of the Railway Employee Protection Regulation).</li> <li>• If no derailing stop is possible, technical measures should then be taken to warn employees in the track danger area of the approach of a rail vehicle, for example the use of a Minimel system (cf. Section 7(4) of the Employee Protection Act - Eliminating human sources of error, cf. also the identically worded ruling of Section 26(3) and (4) of the Railway Employee Protection Regulation).</li> </ul>



Accident/precursor resulting in recommendation			Safety recommendation <sup>2)</sup>
Date	Place	Description of incident	
			<ul style="list-style-type: none"> <li>• If no derailling stop and no technical measures are possible, organisational measures should then be taken to warn employees in the track danger area of the approach of a rail vehicle, for example the use of lookout men or only allowing a rail vehicle to pass once the track danger area has been cleared (cf. also the identically worded ruling of Section 26(5) and (6) of the Railway Employee Protection Regulation).</li> <li>• Ongoing holding of emergency drills in collaboration with the forces of law and order.</li> <li>• Ongoing emergency drills in collaboration with the forces of law and order.</li> <li>• The emergency training and knowledge gained from this are to be communicated in suitable form and to the extent required to employees of the railway infrastructure undertakings, rail transport undertakings and the forces of law and order.</li> <li>• The coordination meetings with external assistants for emergency area stations provided for in accordance with the ÖBB-DA emergency management are also to be held nationwide with all existing emergency management and the forces of law and order. Under Section 8 of the Employee Protection Act, employers must collaborate on implementing protective measures, they must in particular coordinate their activities in the field of risk prevention and inform each other and their employees. In principle, this must be done at employer level (in this case ÖBB-Infrastruktur Betrieb AG on the one hand and the police authorities on the other). To avoid similar accidents, it should therefore be ensured that in future the employer ÖBB-Infrastruktur Betrieb AG guarantees appropriate coordination with other employers for activities in the track danger area.</li> <li>• Re-evaluation of the traffic controller jobs in the Wolfurt management office and in the RVL-West emergency management office in collaboration with the transport Labour Inspectorate.</li> <li>• Employees of the forces of law and order are to receive continuous instruction on behaviour in the track danger area.</li> </ul>
27.02.07	Upper Austria, Styregg	<b>Unauthorised admittance</b> Train 3870	<ul style="list-style-type: none"> <li>• Inspection of all route blocking magnets of identical construction (already carried out by ÖBB-Infrastruktur Betrieb AG).</li> </ul>
07.03.07	Upper Austria, Gmunden	<b>Shunting collision</b>	<ul style="list-style-type: none"> <li>• Instruction for employees regarding the provisions of ÖBB DV V3 Section II</li> <li>• Random inspections of operational activities are to be carried out by the railway undertaking or the competent rail supervisory authority. Irregularities are to be recorded and appropriate measures put in place.</li> </ul>
27.03.07	Vienna, Matzleinsdorf	<b>Derailement</b> Train 94241	<ul style="list-style-type: none"> <li>• The one-sided loading of vehicles represents an increased risk of derailment and must be avoided at all costs. Before vehicles are put into circulation the carrying rail traffic undertaking must inspect the vehicles to be transported in a suitable form and scope as regards load distribution in accordance with AVV, Annex 9, point 7.1.2 and RIV 2000, Annex II, Volume 1, point 3.3. This inspection is also to be carried out on empty vehicles with reference to any remaining cargo. If the permissible limits of the wheelset load ratios of 1.25:1 in a transverse wagon direction, 2:1 for twin-axle wagons in a longitudinal wagon</li> </ul>

Accident/precursor resulting in recommendation			Safety recommendation <sup>2)</sup>
Date	Place	Description of incident	
			direction and 3:1 for bogie wagons in a longitudinal wagon direction are not observed beyond any doubt, the vehicle in question may not be transported.

*Table D.1.2 – Safety recommendations for other reasons*

Safety recommendation	Reason for recommendation
-	-

## 2. Detailed analysis of data trends

This section contains an analysis of data relating to all categories of CSI:

- number of accidents;
- number of fatalities;
- number of injuries;
- number of malfunctions and near misses;
- cost of all accidents, man-hours in field of safety
- technical safety of infrastructure and its implementation, safety management.

The scope of statistics, the definitions used and data on common safety indicators (CSI) are listed in Annex C.

## 3. Results of the safety recommendations

As a result of an inspection due to an incident by the national safety authorities, during the reference year 2007 the following measure was implemented:

- Amendment to ZSB 12, Section 8 (3), 'Intermittent automatic train control (PZB) vehicle equipment requirement' valid with effect from 09.12.2007 (GZ.: BMVIT-222.111/0004-IV/SCH2/2007)

## E. Important changes to laws and regulations

All three of the following directives were fully transposed into national law under the Austrian Railways Amending Act, Federal Law Gazette I No 125/2006:

- Directive 2004/49/EC on safety on the Community's railways and amending Council Directive 95/18/EC on the licensing of railway undertakings and Directive 2001/14/EC on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification (Railway Safety Directive).

- b) Directive 2004/50/EC amending Council Directive 96/48/EC on the interoperability of the trans-European high-speed rail system and Directive 2001/16/EC of the European Parliament and of the Council on the interoperability of the trans-European conventional rail system.
- c) Directive 2004/51/EC amending Council Directive 91/440/EEC on the development of the Community's railways.

During the reference year 2007 no important changes were made to laws and regulations in the area of rail safety (see Annex D).

In 2004 the Federal Ministry of Transport, Innovation and Technology (BMVIT) provided the European Commission with an initial list of these national, technical regulations. In 2005 this list was supplemented by amendments that had been made in the interim and resubmitted to the European Commission. This took place in accordance with Article 16 (3) of Directive 96/48/EC (High speed rail system) and 2001/16/EC (Conventional rail traffic) as amended in each case by Directive 2004/50/EC:

**<http://www.bmvit.gv.at/verkehr/eisenbahn/recht/eu/normen.html>**

Note: On 20 June 2008 a revised catalogue of Austrian Safety Provisions in Rail Transport was submitted in accordance with Article 8 of Directive 2004/49/EC.

## **F. Development of safety certification and authorisation**

### **1. National legislation – starting dates – availability**

- 1.1. Starting date for issuing safety certification in accordance with Article 10 of Directive 2004/49/EC (where necessary: distinction between Part A and Part B).

The legal basis for safety certification in accordance with Article 10 of Directive 2004/49/EC was created when the Austrian Railways Amending Act 2006 entered the statute book on 27 June 2006 (Sections 37 ff of the Austrian Railways Act).

National transitional provisions on the need for safety certification are set out in

Section 133a (5) and (6) of the Austrian Railways Act:

***Section 133a** (5) Safety certification of unlimited term or which expires after 31 December 2010 issued before midnight on the date of promulgation of the federal law in Federal Law Gazette I No 125/2006 by infrastructure managers to railway undertakings established in Austria shall be valid, unless withdrawn beforehand, as safety certification Part A and B until midnight on 31 December 2010. Safety certification which expires before 31 December 2010 issued before midnight on the date of promulgation of the federal law in Federal Law Gazette I No 125/2006 by infrastructure managers to railway undertakings established in Austria shall be valid, unless it is withdrawn beforehand, as safety certification Part A and B until such time as it expires. If an application was made for safety certification Part A and B with the Federal Minister of Transport, Innovation and Technology six months before expiry of the safety certification, the safety certification shall be valid as safety certification Part A and B once it has expired, unless it is withdrawn beforehand, pending a decision on the application or until midnight on 31 December 2010, whichever is the sooner.*

*(6) Safety certification issued before midnight on the date of promulgation of the federal law in Federal Law Gazette I No 125/2006 by infrastructure managers to railway undertakings established in another Member State of the European Union, another contracting state to the Agreement on the European Economic Area or the Swiss Confederation shall be valid as safety certification Part B until such time as it expires, unless it is withdrawn beforehand, or until midnight on 31 December 2010, whichever is the sooner. Safety certification issued before midnight on the date of promulgation of the federal act in Federal Law Gazette I No 125/2006 for such railway undertakings in the country in which they are established shall be valid for the rest as proof of safety certification Part A and B until such time as it expires, unless it is withdrawn beforehand, or until midnight on 31 December 2010, whichever is the sooner.*

1.2. Starting date for safety authorisation in accordance with Article 11 of Directive 2004/49/EC

The legal basis for issuing safety authorisation in accordance with Article 11 of Directive 2004/49/EC was created when the Austrian Railways Amending Act 2006 entered the statute book on 27 June 2006 (Sections 38 ff of the Austrian Railways Act).

National transitional provisions on the need for safety authorisation are set out in Section 133a (7) of the Austrian Railways Act:

***Section 133a** (7) Operating licences shall be valid as safety authorisation within the meaning of Section 38 for the commissioning of main lines and networked secondary lines and modifications thereto until midnight on 30 June 2008.*

1.3. Availability of national safety provisions and other national laws governing railway undertakings and infrastructure operators (website, documentation in hard copy on

request etc.)

Federal Ministry of Transport, Innovation and Technology (BMVIT)  
Section IV / Rail Group<sup>3)</sup>

Radetzkystrasse 2,

A-1030 Vienna

Tel.: +43-1-71162-652000

Fax: +43-1-71162-652099

Websites:

**<http://www.bmvit.gv.at/verkehr/eisenbahn/recht/index.html>**

**<http://www.bmvit.gv.at/verkehr/eisenbahn/interoperabilitaet/notifizierung.html>**

National legislation and ordinances can be found in the general national legal information system: Website: **<http://www.ris2.bka.gv.at>**

In order to assist with the completion of the application documents for safety certification in accordance with Article 12 of the 'Railway Safety Directive', in 2007 a guide entitled: 'Guide to applying for the issue of a safety certificate' was drawn up. This is available on the following website:

**<http://www.bmvit.gv.at/verkehr/eisenbahn/leitfaeden/bescheinigung.html>**

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<sup>3)</sup> Since 11 July 2008 the Federal Ministry of Transport, Innovation and Technology (BMVIT) has had a new business organisation: <http://www.bmvit.gv.at/ministerium/aufgaben/organisation.html>

## **2. Numerical data**

Numerical data on the progress of safety certification and authorisation can be found in Annex E.

## **3. Procedural aspects**

### **3.1. Safety certification – Part A**

In the 2007 reference year 6 applications were made for the issue of safety certification – Part A. None of these procedures has yet been completed, however.

### **3.2. Safety certification – Part B**

In the 2007 reference year 8 applications were made for the issue of safety certification – Part B. None of these procedures has yet been completed, however.

### **3.3. Safety authorisation**

No applications made for safety certification in the 2007 reference year, therefore not yet relevant for the 2007 reference year.

## **G. Supervision of railway undertakings and infrastructure operators**

### **1. Description of measures to supervise railway undertakings and infrastructure operators**

The general tasks of the railway authorities and their supervisory instruments are regulated en bloc in Section 13 of the Austrian Railways Act, whereby the railway undertakings are given a great deal of authority to self-regulate construction and operations under the current version of the Austrian Railways Act.

Railway undertakings and infrastructure managers are subject to inspection, inter alia, when exceptional incidents occur (cf. also point D.1.) e.g. random official inspection of operating documents on site at railway undertakings, in conjunction with documentation of the results and decisions on measures to rectify shortcomings (on-site supervision).

### **2. Transmission of all annual safety reports prepared by infrastructure managers and railway undertakings in accordance with Article 9(4) of the**

### **Railway Safety Directive by statutory deadlines**

The following were transmitted to the National Safety Authority (BMVIT) for the 2007 reference year, together with further statistics:

13 safety reports by infrastructure managers,

20 safety reports by railway undertakings,

data from the Federal Traffic Institute (National Accident Investigating Body),  
additional data from railway undertakings.

**3. Number of inspections of RU/IM for 2007**

*Not yet relevant for the 2007 reference year (see point F.3.)*

**4. Number of audits of RU/IM for 2007**

*Not yet relevant for the 2007 reference year (see point F.3.)*

**5. Summary of relevant corrective measures/activities (e.g. changes, withdrawal, cancellation, important warnings) in connection with safety aspects during audits/inspections**

*Not yet relevant for the 2007 reference year (see point F.3.)*

**6. Complaints by IM about RU in connection with terms in their certification in accordance with Part A/Part B**

*Not yet relevant for the 2007 reference year (see point F.3.)*

**7. Complaints by RU about IM in connection with terms in the safety authorisation**

*Not yet relevant for the 2007 reference year (see point F.3.)*



## **H. Annexes**

### A.1. Map of the railway network



A complete list of stations and services available is given in Section B

Lines with high-speed traffic

Lines without high-speed traffic

Narrow-gauge lines

Rack (cog) railways

Private lines

National border

Land border

**Vienna regional network overleaf**

**Seasonal recreational traffic**

**Special traffic**

**Lines of ÖBB Infrastruktur Bau AG**

**Lines of other infrastructure managers**

## A.2. List of railway undertakings and infrastructure managers

### A.2.1. Infrastructure managers (on mainline and networked secondary line railways)

Name	Address	Website/Link to Network Statement
Aktiengesellschaft der Wiener Lokalbahnen	Eichenstraße 1 1120 Vienna	<a href="http://www.wlb.at">www.wlb.at</a>
Cargo-Center-Graz Betriebsgesellschaft m.b.H. & Co KG	Terminal 1 8402 Werndorf	<a href="http://www.cargo-center-graz.at">www.cargo-center-graz.at</a>
Graz-Köflacher Bahn und Busbetrieb GmbH	Köflacher Gasse 35 – 41 8020 Graz	<a href="http://www.gkb.at">www.gkb.at</a>
Lokalbahn Lambach- Vorchdorf- Eggenberg AG Betriebsführung: Stern & Hafferl Verkehrs- gesellschaft mbH	Kuferzeile 32 4810 Gmunden	<a href="http://www.stern-verkehr.at">www.stern-verkehr.at</a>
Linzer Lokalbahn AG Betriebsführung: Stern & Hafferl Verkehrs- gesellschaft mbH	Rathaus 4041 Linz	<a href="http://www.stern-verkehr.at">www.stern-verkehr.at</a>
Montafonerbahn AG	Bahnhofstraße 15 a+b 6780 Schruns	<a href="http://www.montafonerbahn.at">www.montafonerbahn.at</a>
Neusiedler Seebahn AG	Bahnhofplatz 5 7041 Wulkaprodersdorf	<a href="http://www.nsb-ag.at">www.nsb-ag.at</a>
ÖBB Infrastruktur Bau AG	Vivenotgasse 10 1120 Vienna	<a href="http://www.oebb.at/bau">www.oebb.at/bau</a>
ÖBB Infrastruktur Betrieb AG	Elisabethstraße 9 1010 Vienna	<a href="http://www.oebb.at/betrieb">www.oebb.at/betrieb</a>
Raab-Oedenburg-Ebenfurter Eisenbahn AG	Bahnhofplatz 5 7041 Wulkaprodersdorf	<a href="http://www.raaerbahn.at">www.raaerbahn.at</a>
Salzburg AG für Energie, Verkehr und Telekommunikation	Plainstraße 70 5020 Salzburg	<a href="http://www.salzburg-ag.at">www.salzburg-ag.at</a>
Steiermärkische Landesbahnen	Eggenberger Str. 20 8020 Graz	<a href="http://www.stlb.at">www.stlb.at</a>
Stern & Hafferl Verkehrsgesellschaft mbH	Kuferzeile 32 4810 Gmunden	<a href="http://www.stern-verkehr.at">www.stern-verkehr.at</a>
Süd Burgenländische Regionalbahn GmbH (Betrieb noch nicht erfolgt)	Bahnstraße 1 7508 Großpetersdorf	<a href="http://www.schuch-reisen.at">www.schuch-reisen.at</a>

#### A.2.2. Railway undertakings with traffic authorisation under Section 15 or 16 of the Austrian Railways Act

<b>Name</b>	<b>Address</b>	<b>Website</b>
Aktiengesellschaft der Wiener Lokalbahnen	Eichenstraße 1 1120 Vienna	<a href="http://www.wlb.at">www.wlb.at</a>
Cargo-Center-Graz Betriebsgesellschaft m.b.H. & Co KG	Terminal 1 8402 Werndorf	<a href="http://www.cargo-center-graz.at">www.cargo-center-graz.at</a>
Graz-Köflacher Bahn und Busbetrieb GmbH	Köflacher Gasse 35 – 41 8020 Graz	<a href="http://www.gkb.at">www.gkb.at</a>
Logistik Service GmbH	Lunzerstraße 41 4031 Linz	<a href="http://www.voestalpine.com/logserv">www.voestalpine.com/logserv</a>
LTE-Logistik- und Transport GmbH	Reininghausstraße 3 8020 Graz	<a href="http://www.lte.at">www.lte.at</a>
Montafonerbahn AG	Bahnhofstraße 15 a+b 6780 Schruns	<a href="http://www.montafonerbahn.at">www.montafonerbahn.at</a>
ÖBB Personenverkehr AG	Wagramer Straße 17-19 1220 Vienna	<a href="http://www.oebb.at/pv">www.oebb.at/pv</a>
ÖBB Traktion GmbH	Langauer Gasse 1 1150 Vienna	<a href="http://www.oebb-traktiongmbh.at">www.oebb-traktiongmbh.at</a>
ÖBB Technische Services GmbH	Grillgasse 48 1110 Vienna	<a href="http://www.oebb.at/ts">www.oebb.at/ts</a>
Raab-Oedenburg-Ebenfurter Eisenbahn AG	Bahnhofplatz 5 7041 Wulkaprodersdorf	<a href="http://www.raaberbahn.at">www.raaberbahn.at</a>
Rail Cargo Austria AG	Stallburggasse 4 1010 Vienna	<a href="http://www.railcargo.at">www.railcargo.at</a>
RTS Rail Transport Services GmbH	Puchstraße 184a 8055 Graz	<a href="http://www.rts-austria.at">www.rts-austria.at</a>
Salzburg AG für Energie, Verkehr und Telekommunikation	Plainstraße 70 5020 Salzburg	<a href="http://www.salzburg-ag.at">www.salzburg-ag.at</a>
Steiermarkbahn Transport und Logistik GmbH	Eggenberger Straße 20 8020 Graz	<a href="http://www.steiermarkbahn.at">www.steiermarkbahn.at</a>
Steiermärkische Landesbahnen	Eggenberger Straße 20 8020 Graz	<a href="http://www.stlb.at">www.stlb.at</a>
Stern & Hafferl Verkehrsgesellschaft mbH	Kuferzeile 32 4810 Gmunden	<a href="http://www.stern-verkehr.at">www.stern-verkehr.at</a>
TX Logistik GmbH	Am Concorde-Park E/13 2320 Schwechat	<a href="http://www.txlogistic.com">www.txlogistic.com</a>

## **ANNEX B: Organisation chart(s) of National Safety Authority**

### **B.1. Organisation chart of the National Safety Authority (Federal Ministry of Transport, Innovation and Technology):**

*No changes in reference year.*

### **B.2. Organisation chart of the Federal Traffic Institute (National Accident Investigating Body):**

*No changes in reference year.*

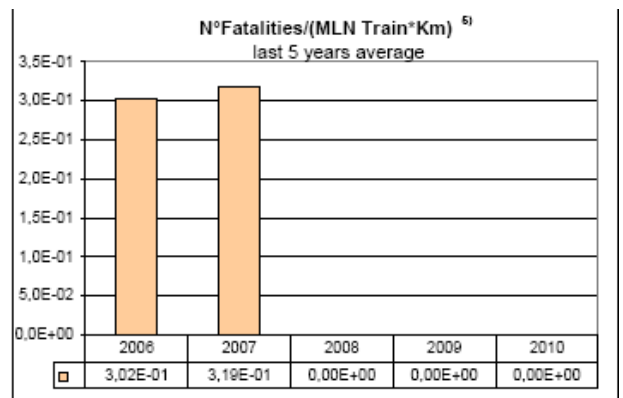
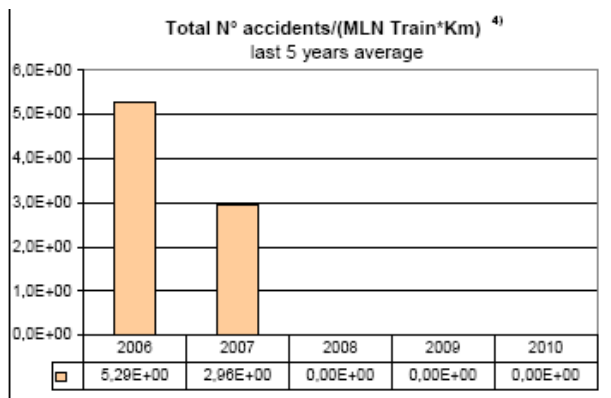
## **ANNEX C: CSI data – definitions used**

The CSI data evaluated refer to the operation of mainline and networked secondary line railways, the operation of rail vehicles on such railways and traffic on such railways for the 2007 reference year in Austria, including the data from the annual report on the 2006 year on Austrian territory.

### **C.1. CSI data**

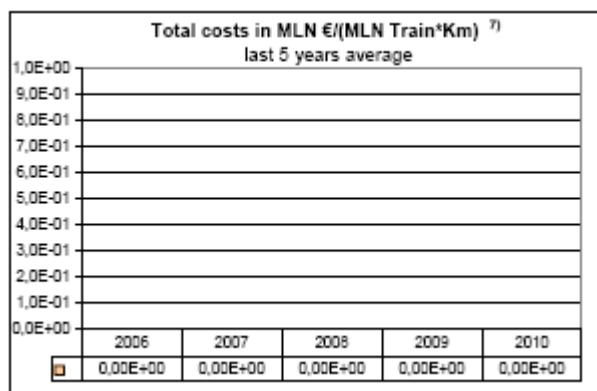
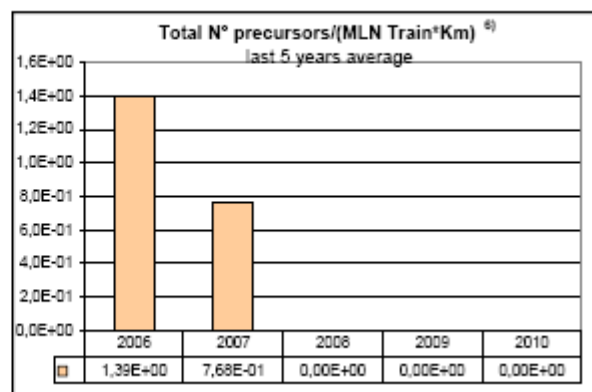
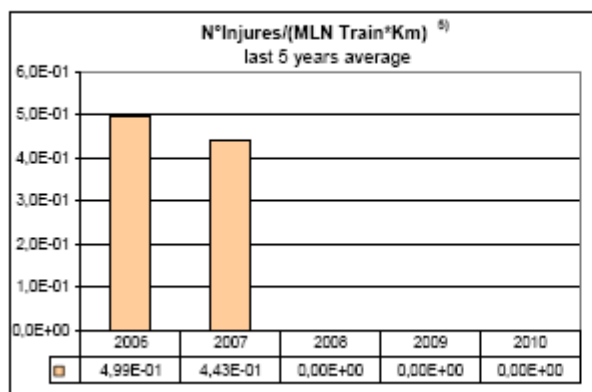
Charts:

#### *Performance overview*



<sup>4)</sup> The total number of accidents in 2006 includes all accidents. From 2007 onwards only notified serious accidents in accordance with Directive (EC) No 91/2003, most recently amended by Directive (EC) No 1192/2003 will be included.

<sup>5)</sup> The figures for 2006 have been corrected in relation to the original safety report for 2006. (The number of serious injuries or fatalities among level crossing users was also included in other categories).



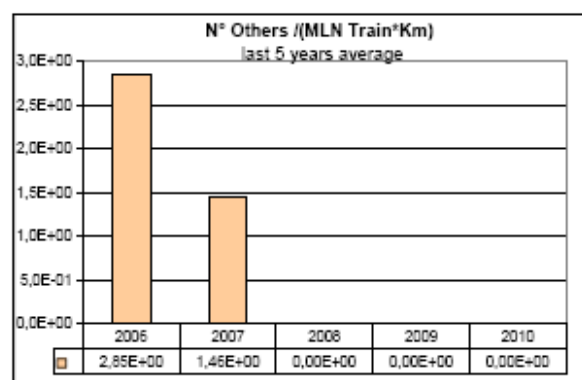
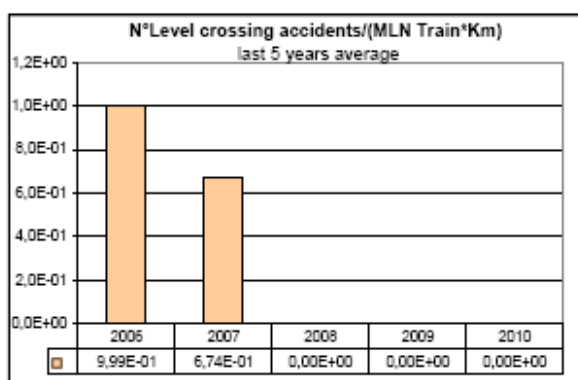
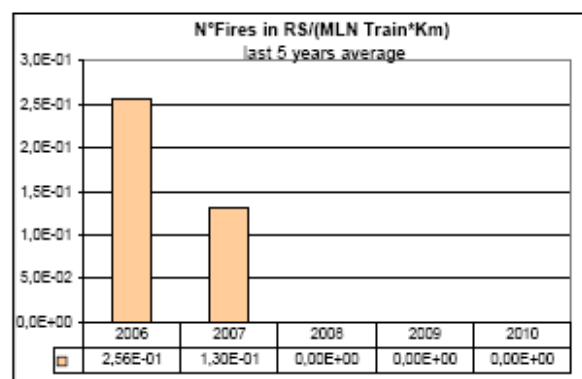
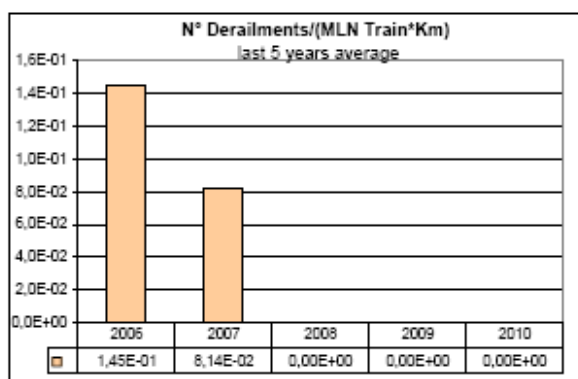
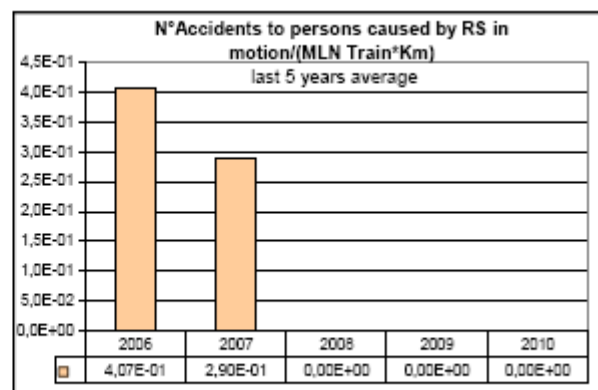
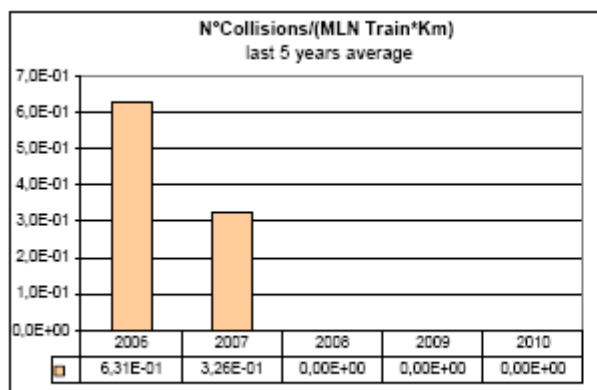
### Accidents by type of accident

The total number of accidents in 2006 includes all accidents. From 2007 onwards only notified serious accidents in accordance with Directive (EC) No 91/2003, most recently amended by Directive (EC) No 1192/2003 will be included.

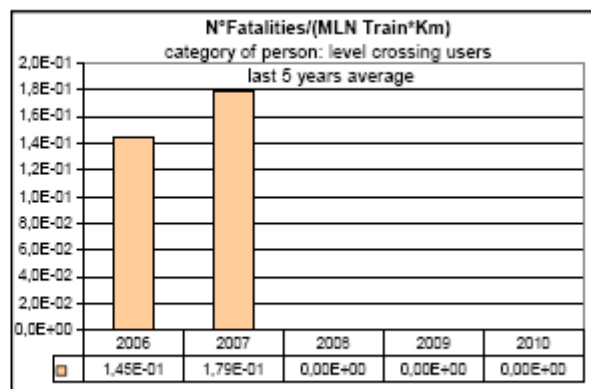
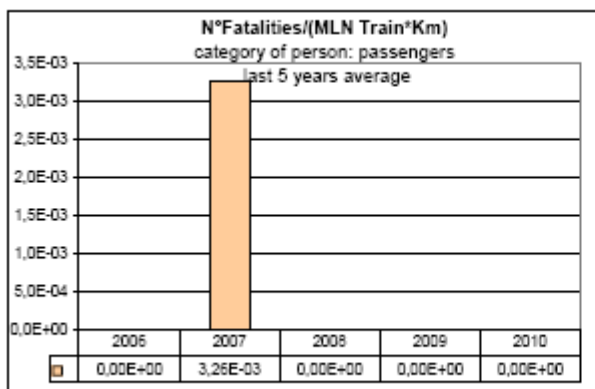
<sup>6)</sup> The figures for malfunctions and near misses were not available from all railway undertakings (in particular broken rails and track buckles).

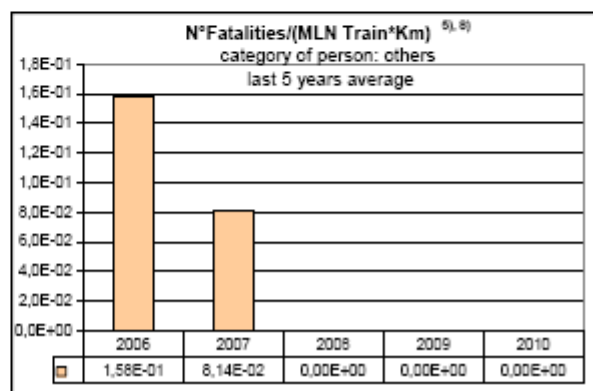
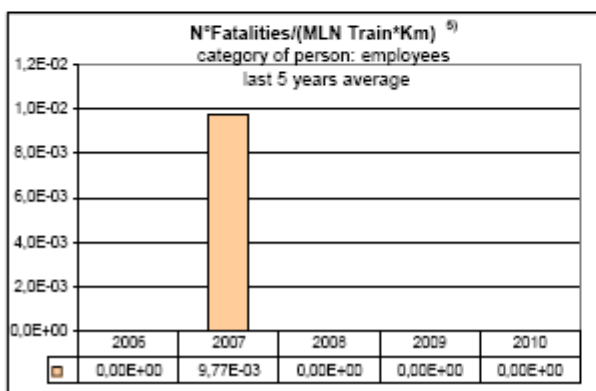
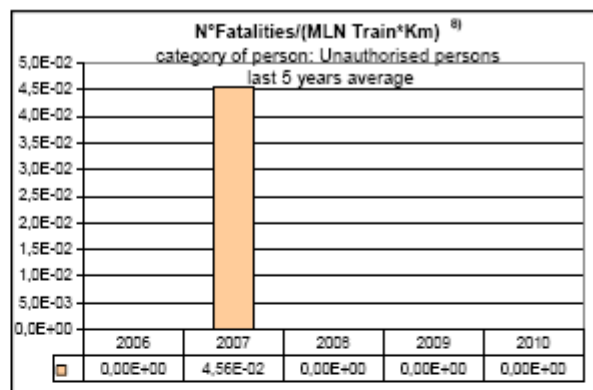
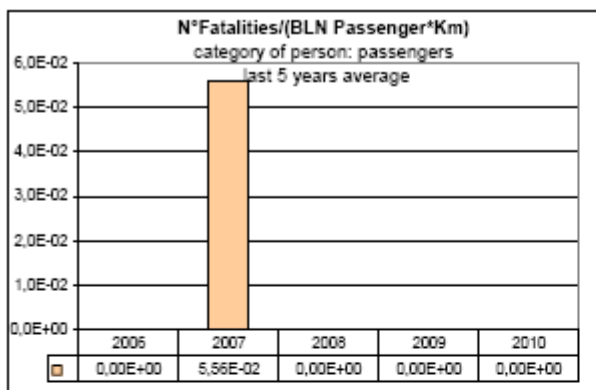
<sup>7)</sup> Costs were not available for all railway undertakings and therefore any representation at national level is meaningless.



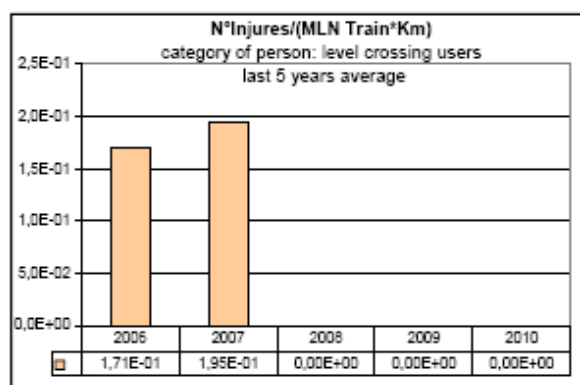
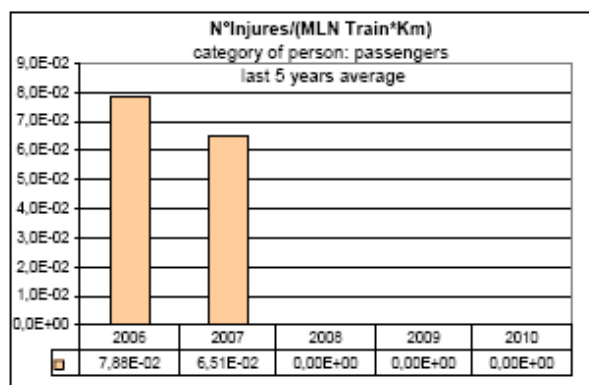


*Fatalities by category of person involved*



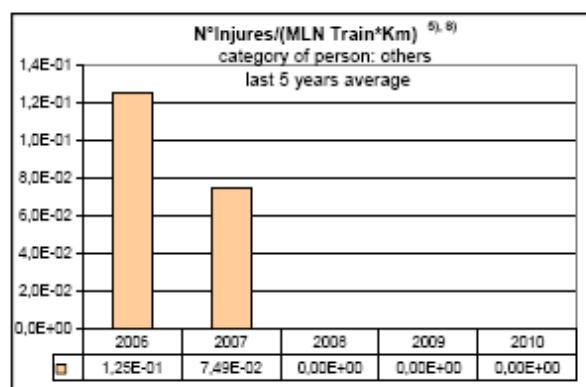
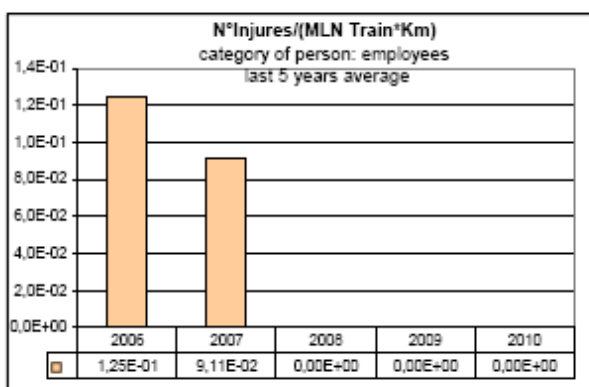
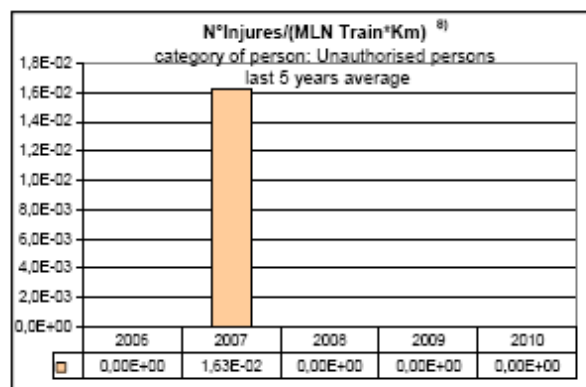
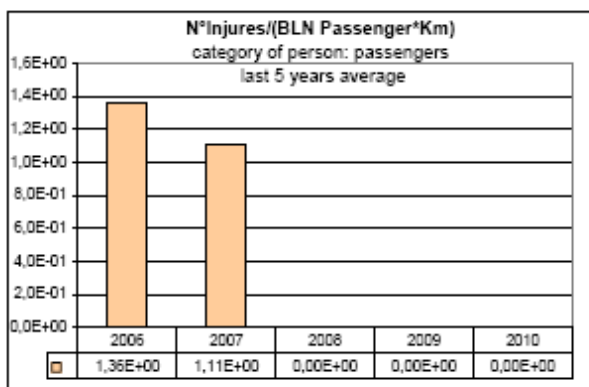


### Injuries by category of person involved



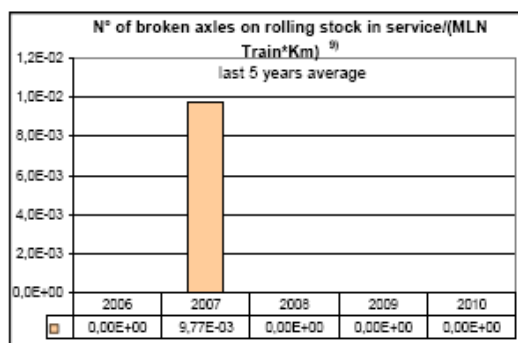
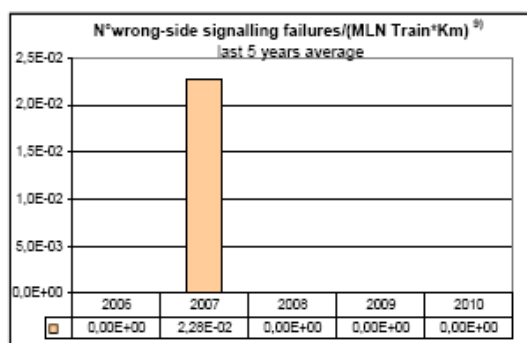
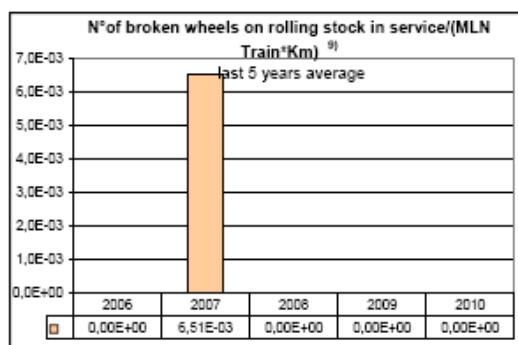
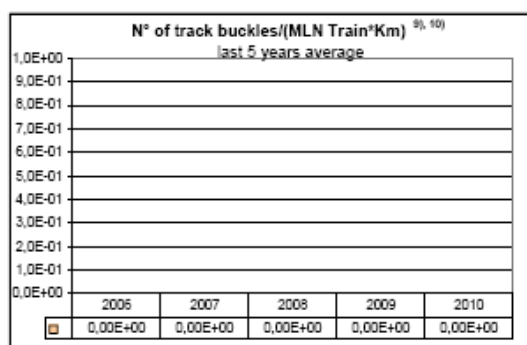
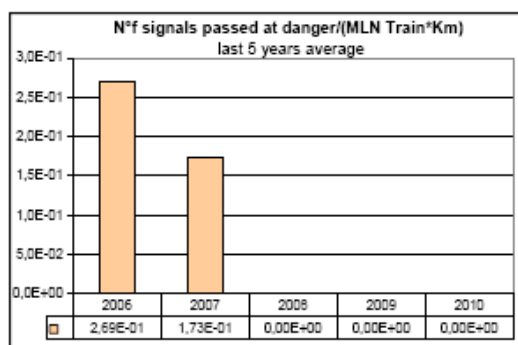
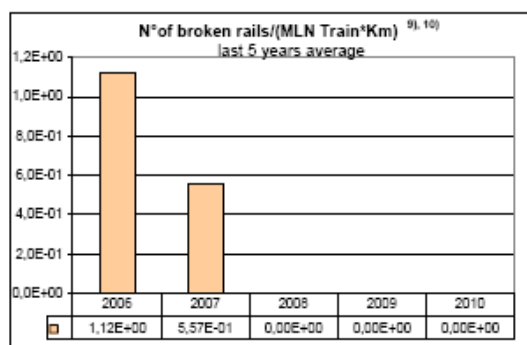
<sup>5)</sup> The figures for 2006 have been corrected in relation to the original safety report for 2006. (The number of serious injuries or fatalities among level crossing users was also included in other categories).

<sup>6)</sup> In the reference year 2006 the 'category of persons: others' included unauthorised persons.



- <sup>5)</sup> The figures for 2006 have been corrected in relation to the original safety report for 2006. (The number of serious injuries or fatalities among level crossing users was also included in other categories).
- <sup>8)</sup> In the reference year 2006 the 'category of persons: others' included unauthorised persons.

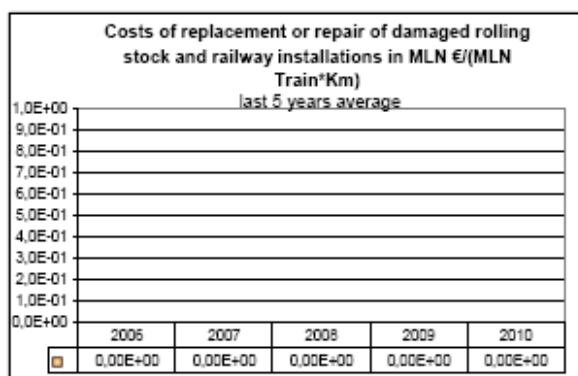
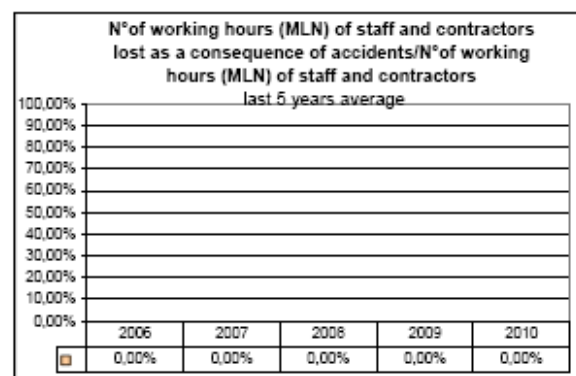
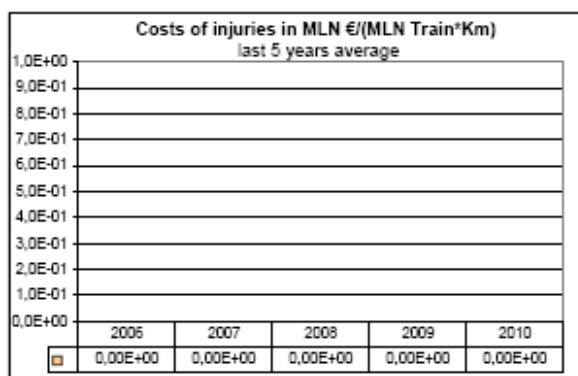
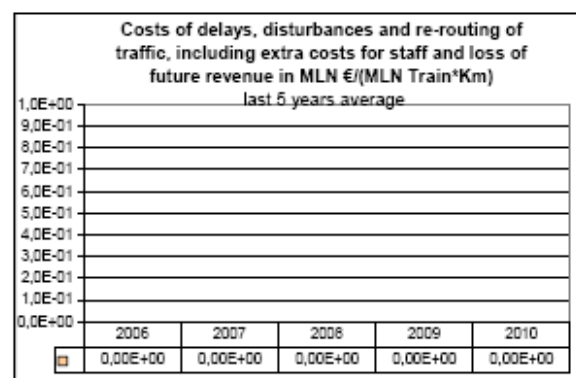
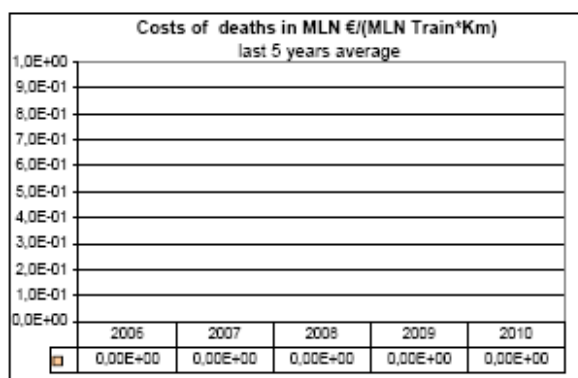
## Precursors



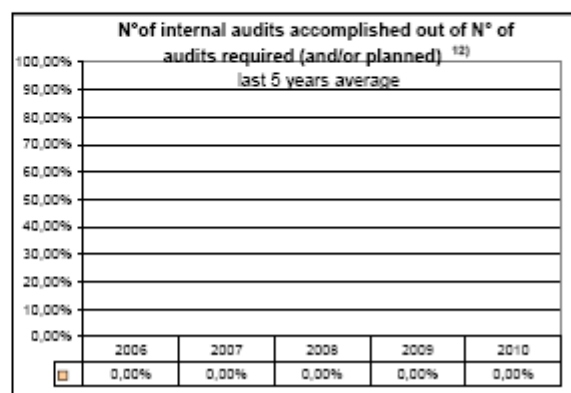
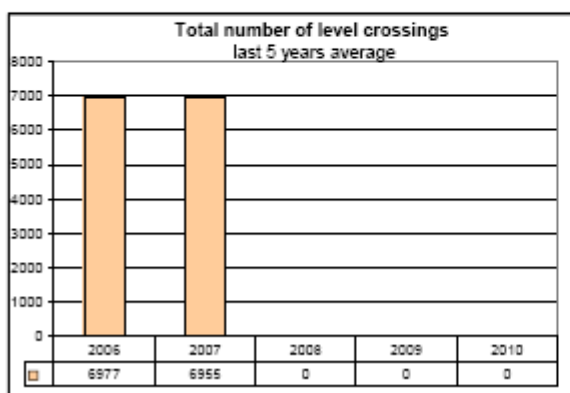
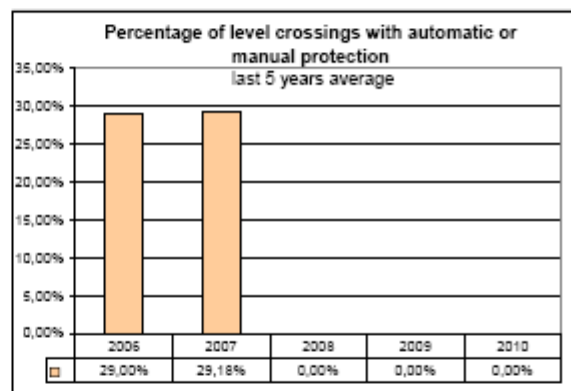
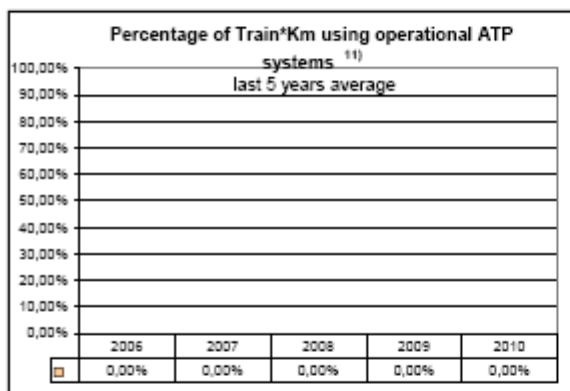
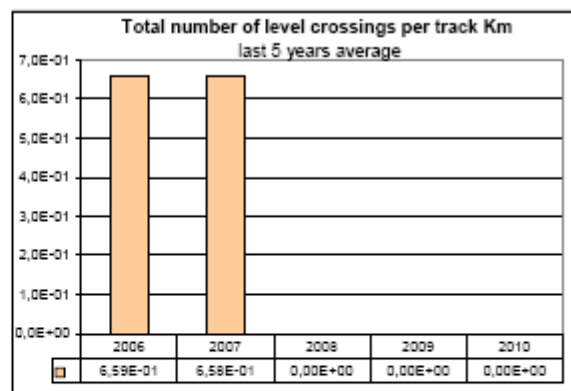
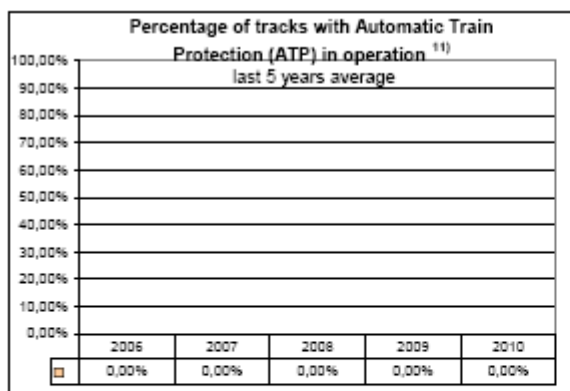
- <sup>9)</sup> No standard breakdown of malfunctions and near misses by broken rails, track buckles, signalling failures, broken wheels and broken axles on rolling stock in service was possible for the 2006 year. The figure for broken rails for 2006 also includes track buckles, signalling failures, broken wheels and axles on rolling stock in service
- <sup>10)</sup> The figures for broken rails and track buckles for the 2007 year were not available for all railway undertakings and therefore any representation at national level is meaningless.

*Cost of all accidents, number of staff and employee working hours lost due to accident*

The costs of all accidents and the number of working hours lost were not available for all railway undertakings and therefore any representation at national level is meaningless.

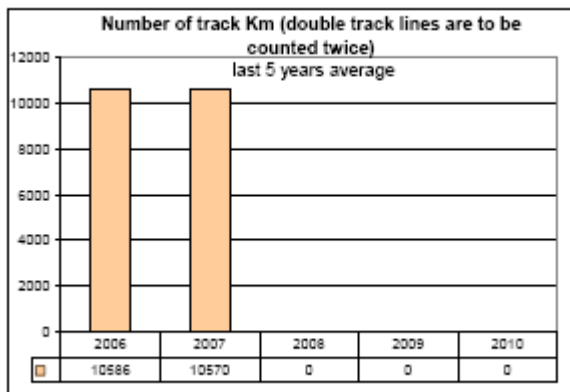


*Technical safety of infrastructure and its implementation, safety management*



<sup>11)</sup> Indicators in relation to automatic train protection were not available for all railway undertakings and therefore any representation at national level is meaningless.

<sup>12)</sup> Indicators in relation to safety management system are not yet relevant for the 2007 reference year.





Tables:

Number of accidents and Train\*Km 4)

Year	Type of accident						Train*Km (MLN)
	Collisions	Derailments	Level crossing accidents	Accidents to persons caused by RS in motion	Fires in RS	Others	
2006	96	22	182	62	39	434	192
2007	4	3	56	27	1	14	105
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							

Number of accidents/Train\*Km 4)

Year	Type of accident						Train*Km (MLN)
	Collisions	Derailments	Level crossing accidents	Accidents to persons caused by RS in motion	Fires in RS	Others	
2006	8.31E-01	1.49E-01	9.99E-01	4.07E-01	2.59E-01	2.03E+00	5.29E+00
2007	3.28E-01	8.14E-02	5.74E-01	2.90E-01	1.35E-01	1.48E+00	2.96E+00
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							

N° of fatalities, Train\*Km and Passenger\*Km 5), 8)

Year	Category of persons						Train*Km (MLN)
	Passengers	Employees	Level crossing users	Unauthorized persons	Others	Total	
2006	0	0	22	0	24	46	192
2007	1	3	53	14	1	72	105
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							

N° of fatalities/Train\*Km and Passenger\*Km 5), 8)

Year	Category of persons						Train*Km (MLN)
	Passengers	Employees	Level crossing users	Unauthorized persons	Others	Total	
2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E-01	3.02E-01	5.29E+00
2007	8.51E-03	5.96E-02	9.77E-02	1.79E-01	4.55E-02	8.14E-02	2.96E+00
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							

N° of injuries, Train\*Km and Pass.\*Km 5), 8)

Year	Category of persons						Train*Km (MLN)
	Passengers	Employees	Level crossing users	Unauthorized persons	Others	Total	
2006	12	19	26	0	19	76	192
2007	5	9	34	5	4	60	105
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							

N° of injuries/Train\*Km and Passenger\*Km 5), 8)

Year	Category of persons						Train*Km (MLN)
	Passengers	Employees	Level crossing users	Unauthorized persons	Others	Total	
2006	7.55E-02	1.26E+00	1.26E-01	1.71E-01	0.00E+00	1.29E-01	4.03E-01
2007	8.51E-02	1.11E+00	9.77E-02	1.99E-01	1.63E-02	7.49E-02	4.43E-01
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							

Number of precursors and Train\*Km 9), 10)

Year	Type of accident						Train*Km (MLN)
	Number of broken rails	Number of broken track facilities	Number of wrong-side signalling failures	Number of signals passed at danger	Number of broken wheels on rolling stock in service	Number of broken axles on rolling stock in service	
2006	171	0	0	41	0	0	212
2007	0	0	7	12	2	3	24
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							

Number of precursors/Train\*Km 9), 10)

Year	Type of accident						Train*Km (MLN)
	Number of broken rails	Number of broken track facilities	Number of wrong-side signalling failures	Number of signals passed at danger	Number of broken wheels on rolling stock in service	Number of broken axles on rolling stock in service	
2006	1.12E+00	0.00E+00	0.00E+00	2.89E-01	0.00E+00	0.00E+00	1.39E+00
2007	5.57E-01	0.00E+00	2.26E-02	1.73E-01	8.51E-03	9.77E-03	7.88E-01
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							

Cost of all accidents, safety hours 7)

Year	Type of accident						Train/Km (MLN)
	Costs of deaths in MLN €	Costs of injuries in MLN €	Costs of replacement or repair of damaged rolling stock and railway installations in MLN €	Costs of delays, disturbances and re-routing of traffic, including extra costs for staff and loss of future revenue in MLN €	Total costs in MLN €	Total number of working hours of staff and contractors lost as a consequence of accidents	
2006	0	0	0	0	0	0	192
2007	0	0	0	0	0	0	195
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							

Cost of all accidents, safety hours: indicators 7)

Year	Type of accident					N° of working hours (MLN) of staff and contractors lost as a consequence of accidents/N° of working hours (MLN) of staff and contractors
	Costs of deaths in MLN €	Costs of injuries in MLN €	Costs of replacement or repair of damaged rolling stock and railway installations in MLN €	Costs of delays, disturbances and re-routing of traffic, including extra costs for staff and loss of future revenue in MLN €	Total costs in MLN €	
2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2008						
2009						
2010						
2011						
2012						
2013						
2014						
2015						

related to Train/Km

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Year	Type of accident					
	Percentage of tracks with Automatic Train Protection (ATP) in operation	Percentage of Train/Km using operation of ATP systems	Total number of level crossings	Number of track Km (double track lines are to be counted twice)	Total number of level crossings per track Km	N° of audits accomplished / N° of audits required (index planned)
2006	0.00%	0.00%	8927	10588	8.58E-01	29.10%
2007	0.00%	0.00%	8952	10563	8.57E-01	29.18%
2008						
2009						
2010						
2011						
2012						
2013						
2014						
2015						

Technical safety of infrastructure and its implementation, management of safety 11), 12)

Year	Type of accident					
	Percentage of tracks with Automatic Train Protection (ATP) in operation	Percentage of Train/Km using operational ATP systems	Total number of level crossings	Number of track Km (double track lines are to be counted twice)	Total number of level crossings per track Km	Percentage of level crossings with automatic or manual protection
2006	0.00%	0.00%	8927	10588	8.58E-01	29.10%
2007	0.00%	0.00%	8955	10570	8.55E-01	29.18%
2008						
2009						
2010						
2011						
2012						
2013						
2014						
2015						

- 4) The total number of accidents in 2006 includes all accidents. From 2007 onwards only notified serious accidents in accordance with Directive (EC) No 91/2003, most recently amended by Directive (EC) No 1192/2003 will be included.
- 5) The figures for 2006 have been corrected in relation to the original safety report for 2006. (The number of serious injuries or fatalities among level crossing users was also included in other categories).
- 6) The figures for malfunctions and near misses were not available from all railway undertakings (in particular broken rails and track buckles).
- 7) Costs were not available for all railway undertakings and therefore any representation at national level is meaningless.
- 8) In the reference year 2006 the 'category of persons: others' included unauthorised persons.
- 9) No standard breakdown of malfunctions and near misses by broken rails, track buckles, signalling failures, broken wheels and broken axles on rolling stock in service was possible for the 2006 year. The figure for broken rails for 2006 also includes track buckles, signalling failures, broken wheels and axles on rolling stock in service
- 10) The figures for broken rails and track buckles for the 2007 year were not available for all railway undertakings and therefore any representation at national level is meaningless.
- 11) Indicators in relation to automatic train protection were not available for all railway undertakings and therefore any representation at national level is meaningless.
- 12) Indicators in relation to safety management system are not yet relevant for the 2007 reference year.

## C.2. Definitions used in the annual report

C.2.1. Definitions to be used in accordance with Regulation (EC) No 91/2003, most recently amended by Directive (EC) No 1192/2003:

**Fatalities (persons killed)**

means any person killed immediately or dying within 30 days as a result of an accident, excluding suicides.

**Injuries (persons seriously injured)**

means any person injured who was hospitalised for more than 24 hours as a result of an accident, excluding attempted suicides.

**Passenger-km**

means the unit of measure representing the transport of one passenger by rail over a distance of one kilometre. Only the distance on the national territory of the reporting country shall be taken into account.

**Rail passenger**

means any person, excluding members of the train crew, who makes a trip by rail. For accident statistics, passengers trying to embark/disembark onto/from a moving train are included.

**Suicide**

means an act to deliberately injure oneself resulting in death, as recorded and classified by the competent national authority.

**Significant accident**

means any accident involving at least one rail vehicle in motion, resulting in at least one killed or seriously injured person, or in significant damage to stock, track, other installations or environment, or extensive disruptions to traffic. Accidents in workshops, warehouses and depots are excluded.

**Train**

means one or more railway vehicles hauled by one or more locomotives or railcars, or one railcar travelling alone, running under a given number or specific designation from an initial fixed point to a terminal fixed point. A light engine, i.e. a locomotive travelling on its own, is not considered to be a train.

**Train-km**

means the unit of measure representing the movement of a train over one kilometre. The distance used is the distance actually run, if available, otherwise the standard network distance between the origin and destination shall be used. Only the distance on the national territory of the reporting country shall be taken into account.

### C.2.2. National definitions

The national definitions and methods of calculation of the items referred to in Annex 1 to Directive 2004/49/EC are listed in this section, irrespective of whether they are defined in this legal act or in Regulation (EC) No 91/2003, most recently amended by Directive (EC) No 1192/2003.

#### **Accident**

1. caused by train derailment or collision,
2. which cause fatalities or serious injuries or
3. which cause considerable damage to vehicles, infrastructure or the environment and clearly affect the regulation of rail safety or safety controls.

#### **Injuries (seriously injured persons)**

1. which require hospitalisation for over 24 hours within seven days of the injury or
2. which cause broken bones (with the exception of simple fractures to fingers, toes etc. or nose)  
or
3. which cause lacerations resulting in heavy bleeding or injury to a nerve, muscle or tendon or
4. damage to internal organs or
5. which result in second or third degree burns or burns to more than 5% of the surface of the body or
6. which were caused by proven exposure to infectious substances or harmful radiation.

#### **Mainline railways, secondary line railways**

Under Section 4 of the Austrian Railways Act 1957, Federal Law Gazette No 60/1957, as amended in Federal Law Gazette I No 125/2006:

***Section 4.** (1) Mainline railways are railways intended for more important public traffic and include railways*

*1. classified as high-capacity lines under Section 1 of the High-Capacity Railways Act, Federal Law Gazette No 135/1989, as amended;*

*2. classified as mainline railways by order of the Federal Minister of Transport, Innovation and Technology because they are of particular significance to high-capacity traffic, especially with international connections or in regional traffic, or are to be developed for such traffic.*

*(2) Secondary line railways are railways intended for public traffic which are not mainline railways or streetcars.*

## Networked mainline and secondary line railways

Under Section 1 a of the Austrian Railways Act 1957, Federal Law Gazette No 60/1957, as amended in Federal Law Gazette I No 125/2006:

*Mainline and secondary line railways are networked when, in addition to simple local connections, transfer between trains is possible without changing track and without technical assistance (e.g. dolly). Mainline and secondary line railways are networked when they are connected across borders with similar other railways in neighbouring states.*

## High-capacity lines

Under the High-Capacity Line Act, Federal Law Gazette No 135/1989, as amended in Federal Law Gazette I No 81 /1999:

**Section 1.** (1) *The Federal government shall issue Ordinances (high-capacity line Ordinances) classifying existing or planned railways (sections or sub-sections), including the necessary rail installations, as high-capacity lines, provided that they are of special significance to high - performance traffic with international connections or to local traffic.*

(2) *Existing or planned railways may also be classified as parts of high-capacity sections if they do not have the properties referred to in Section (1) but are directly connected to high-capacity sections and are needed for rational management of the railways or of rail traffic on high-capacity sections.*

## Railway infrastructure undertaking

Under Section 1 a of the Austrian Railways Act 1957, Federal Law Gazette No 60/1957, as amended in Federal Law Gazette I No 125/2006:

*Section 1 a. A railway infrastructure undertaking is a railway undertaking which serves to construct and operate and has powers of disposal over mainline and secondary line railways, with the exception of secondary line railways which are not networked to other mainline or secondary line railways.*

## Rail traffic undertakings

Under Section 1 b of the Austrian Railways Act 1957, Federal Law Gazette No 60/1957, as amended in Federal Law Gazette I No 125/2006:

*Section 1 b. A rail traffic undertaking is a railway undertaking that provides rail traffic services on the rail infrastructure of mainline or networked secondary line railways and traction services, including undertakings that only provide traction services and to which a traffic authorisation, a traffic franchise or authorisation or a licence tantamount to traffic authorisation under Section 41 is granted*

### C.3. Abbreviations

Abzw	Junction
Bf	Station
BLN	10 <sup>9</sup>
CSI	Common Safety Indicator
DB	Guideline
DV	Instruction
EC	EuroCity
EisbG	Austrian Railways Act 1957
EIU	Railway infrastructure undertaking
EK	Level crossing
ET	Electric railcar
ERA	European Railway Agency
EVU	Railway traffic undertaking
Gvbf	Main shunting yard
Hbf	Central station
IC	InterCity
LC	Level Crossing
LZ	Light engine
MLN	10 <sup>6</sup>
NSA	National Safety Authorities
ÖBB	Österreichische Bundesbahnen
ÖBH	Österreichisches Bundesheer [Austrian Armed Forces]
PZB	Intermittent automatic train control
RS	Rolling Stock
RU/IM	Railway Undertaking / Infrastructure Manager
SKI	Work car
Tfz	Traction unit
Üst	Cross-over
UUS	Federal Accident Investigation Bureau
Vbf	Shunting yard
Z	Train
ZSB	Supplementary provisions to the signalling and operating instructions
Zvbf	Central shunting yard

## ANNEX D: Important changes to laws and regulations

	Legal framework	Date entered into force	Grounds for adoption (details of new law or amendment to existing legislation)	Description
<b>General legislation on safety in national rail transport</b>	NONE			
Legislation relating to National Safety Authority				
Legislation relating to named agencies, evaluators, external registration authorities, investigations etc.	NONE			
<b>National provisions on rail safety</b>				
Provisions on national safety targets and methods				
Provisions on requirements for safety management systems and safety certification of railway undertakings				
Provisions on requirements for safety management systems and safety authorisation of infrastructure managers				
Provisions on requirements for wagon owners	NONE			
Provisions on requirements for servicing companies	NONE			
Provisions on requirements for approval of commissioning and maintenance of new and substantially modified vehicles, including rules for exchanging vehicles between railway undertakings, registration systems and requirements for testing procedures				
Common operating provisions for the railway network, including provisions for signalling and traffic control system				

Provisions on requirements for additional internal operating regulations which must be issued by infrastructure managers and railway undertakings				
Provisions on requirements for staff entrusted with safety-related tasks, including selection criteria, medical aptitude, training and licensing				
Provisions on accident and malfunction investigations, including recommendations				
Provisions on requirements for national safety indicators, including indicator recording and analysis				
Provisions on requirements for approval of commissioning of infrastructure (tracks, bridges, tunnels, power, ATC, radio, signals, interlocking, level crossings, platforms etc.)	NONE			



## **ANNEX E: Development of safety certification and authorisation – numerical data**

### **E.1. Safety certification in accordance with Directive 2001/14/EC**

Number of safety certifications issued in accordance with Directive 2001/14/EC for railway undertakings in 2007 (by railway infrastructure undertakings).	Issued in your Member State:	
	Issued in another Member State:	

### **E.2. Safety certification in accordance with Directive 2004/49/EC**

		New	Updated / Amended	Renewed
E.2.1. Number of valid safety certifications in accordance with <b>Part A</b> for railway undertakings in the 2007 year.	Registered in your Member State:			
	Registered in another Member State:			

		New	Updated / Amended	Renewed
E.2.2. Number of valid safety certifications in accordance with <b>Part B</b> for railway undertakings in the 2007 year.	Registered in your Member State:			
	Registered in another Member State:			

			A	R	P
E.2.3. Number of applications for safety certifications (in accordance with <b>Part A</b> ) from railway undertakings in the 2007 year.	Registered in your Member State for:	new certifications			6
		updated / amended certifications			
		renewed certifications			
	Registered in another Member State for:	new certifications			
		updated/amended certifications			
		renewed certifications			
			A	R	P

E.2.4. Number of applications for safety certifications (in accordance with <b>Part B</b> ) from railway undertakings in the 2007 year.	Registered in your Member State for:	new certifications			6
		updated /amended certifications			
		renewed certifications			
	Registered in another Member State for:	new certifications			2
		updated /amended certifications			
		renewed certifications			

A = *accepted*: certification already issued

R = *rejected*: certification not issued

P = *pending*: decision not yet made, certification not yet issued in the reference year

E.2.5. List of countries, in which the railway undertakings, applying in your Member State for safety certification in accordance with Part B, have already obtained a safety certification in accordance with Part A.

In the reference year 2007 no railway undertaking with a valid Part A from another country had yet sought a Part B safety certification.

### E.3. Safety authorisation in accordance with Directive 2004/49/EC

	New	Updated / amended	Renewed
E.3.1. Number of valid safety authorisations for infrastructure managers in the 2007 year, registered in you Member State.			

		A	R	P
E.3.2. Number of applications for safety certifications, submitted by infrastructure managers and registered in your Member State in the 2007 year.	new authorisations			
	updated / amended authorisations			
	renewed authorisations			

A = application *accepted*: authorisation already issued

R = application *rejected*: authorisation not issued

P = *pending*: decision not yet made, no authorisation issued in the reference year

#### E.4. Procedural aspects – Safety certifications (Part A)

In the reference year 2007 no procedure for issue of a Part A safety certification had been completed, so not yet relevant for the 2007 reference year.

#### E.5. Procedural aspects – Safety certifications (Part B)

In the reference year 2007 no procedure for issue of a Part B safety certification had been completed, so not yet relevant for the 2007 reference year.

#### E.6. Procedural aspects – Safety approvals

In the reference year 2007 no application had yet been made for issue of a safety approval, so not yet relevant for the 2007 reference year.