



*[Letterhead of the Government of Spain, Development Ministry, Secretariat of State for Infrastructure, Secretariat General for Infrastructure, Railways Department]*

*National Safety Authority (Autoridad Nacional de Seguridad)*

# Annual report

# 2008

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## **A.1. CONTENTS OF THE REPORT**

This report has been prepared by the Railways Department (Dirección General de Ferrocarriles) of the Development Ministry (Ministerio de Fomento), which currently acts as the National Safety Authority in Spain, as laid down in the legislation in force.

The report is intended to comply with Article 18 of Directive 2004/49 on railway safety:

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

- (a) the development of railway safety, including an aggregation at Member State level of the CSIs laid down in Annex I;*
- (b) important changes in legislation and regulation concerning railway safety;*
- (c) the development of safety certification and safety authorisation;*
- (d) results of and experience relating to the supervision of infrastructure managers and railway undertakings."*

The information contained in this report reflects the situation at the end of 2007, that is to say, **up to 31 December 2007**.

The report sets out **only information relating to the general interest rail network (Red Ferroviaria de Interés General, RFIG)<sup>1</sup> run by the Rail Infrastructure Manager (Administrador de Infraestructuras Ferroviarias, ADIF)**, and the services and activities provided on that network. The scope of the report excludes:

- a) metros, trams and other light rail systems,
- b) networks whose operation is functionally separate from the RFIG run by the Rail Infrastructure Manager or from the other Spanish railways systems and which are intended only for urban, suburban, local or regional passenger transport services, and railway undertakings which operate only on that type of network
- c) privately-owned rail infrastructure for use exclusively by the owner of the infrastructure for its own freight operations.

The report also excludes the State-owned metric gauge rail network managed by FEVE (metric gauge network) which, although part of the RFIG, is not regarded as covered by Directive 2001/12/EC and, according to Spanish law, requires the approval of a specific set of rules.

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<sup>1</sup> Defined by Ley 39/2003 del Sector Ferroviario of 17 November (Rail Sector Act), Article 4.

## A.2. ENGLISH SUMMARY

This report has been prepared by the Railways Department, within the Transport Ministry, the entity currently in charge of the Spanish National Safety Authority functions, in accordance with the provisions set up in the legislation in force.

**Nevertheless, it is a temporary measure.** Act 28/2006 (Act on State Agencies for the Improvement of Public Services) of 18 July, provided for the creation of the **Road and Rail Transport Safety Agency (Agencia Estatal de Seguridad del Transporte Terrestre)**, which will take over on a definitive basis the powers and responsibilities of the National Safety Authority.

In 2007, we have continued to adapt to the new railway model consolidated in Spain during 2006:

- there has been continued inclusion of new undertakings in the national market, which, after obtaining of railway licence, are starting the process to obtain safety certificates, developing their own internal structure and positioning themselves within the market. During 2007 those companies commenced operation, alongside Renfe - Operadora;
- on 7 September Royal Decree 810/2007 came into force, transposing the European Safety Directive, Directive 2004/49/EC, into Spanish law.

The priorities for the organisation and regulation of safety in coming years are the following:

- to continue development of the National Safety Authority by creation of the Road and Rail Transport Safety Agency;
- to carry on and improve the development of regulation.

At the same time, in terms of accidents, measures must be aimed at ensuring a downward and positive trend in the number of accidents and incidents occurring on the RFIG.

## **B. GENERAL ASPECTS**

### **1. INTRODUCTION TO THE REPORT**

As established in Rail Safety Directive 2004/49, the National Safety Authority must annually prepare a report to be forwarded to the European Railway Agency with a view to its:

- use as basic information for the Agency from which to draw up the biannual report on safety.
- publication by the European Agency on its website.

The report is therefore addressed to the various actors in the rail sector and to the public in general by means of its dissemination by the European Railway Agency.

As at 31 December 2007 the applicable Spanish legislation was:

- Ley 39/2003 del Sector Ferroviario of 17 November (Rail Sector Act).
- Royal Decree 2387/2004 of 30 December, approving the Reglamento del Sector Ferroviario (Rail Sector Rules), implementing the Act referred to above.
- Royal Decree 810/2007 of 22 June, approving the Reglamento sobre seguridad en la circulación de la Red Ferroviaria de Interés General (Rules on Traffic Safety in the General Interest Rail Network) .

Under those provisions, the functions of a national safety authority lie with the Railways Department of the Development Ministry. However, it is performing those functions transitionally until conclusion of the process to create the **Road and Rail Transport Safety Agency** which will, in the near future, perform amongst other functions those assigned to the National Safety Authority in the Safety Directive.

The Agency will be set up within the Development Ministry, and will have its own legal personality and structure, independent of other bodies of the Ministry such as the Railways Department or the Accident Investigation Commission.

The process of creating the Agency began with the Act on State Agencies for the Improvement of Public Services, Act 28/2006 of 18 July, which authorised creation of the **Road and Rail Transport Safety Agency**, with the following areas of competence:

*'the detection, analysis and evaluation of safety risks in road and rail transport under State responsibility, and **inspection and supervision of the safety of the rail system, both in relation to infrastructure and rail operation**, in the areas under State responsibility'*

## 2. INFORMATION ON THE STRUCTURE OF THE RAIL SYSTEM (ANNEX A)

### 2.1. THE NETWORK

The Spanish UIC standard and Iberian gauge public interest rail network is run by the public undertaking ADIF (Rail Infrastructure Manager).

**Annex A.1** contains various plans of the network. For more detail one can see the Network Statement drawn up by ADIF available in Spanish and English on the following website:

[http://www.adif.es/empresa/index\\_decred\\_2008.html](http://www.adif.es/empresa/index_decred_2008.html)

This Statement is the document provided by ADIF to the rail undertakings and other candidates to inform them of the characteristics of the infrastructure and terms for accessing the network, ensuring transparency and non-discriminatory access.

### 2.2. LIST OF RAIL UNDERTAKINGS AND INFRASTRUCTURE MANAGERS

#### 2.2.1. Infrastructure Manager

- ADIF (Rail Infrastructure Manager)

#### 2.2.2. Rail undertakings

On 31 December 2007 the following undertakings held safety certificates:

- RENFE Operadora
- Continental Rail
- Acciona Rail Services
- Comsa Rail Transport

**Annex A.2** contains the particulars of those undertakings, which operate under the Safety Directive.

As well as these, other undertakings held rail undertaking licences at the end of 2007, although not safety certificates:

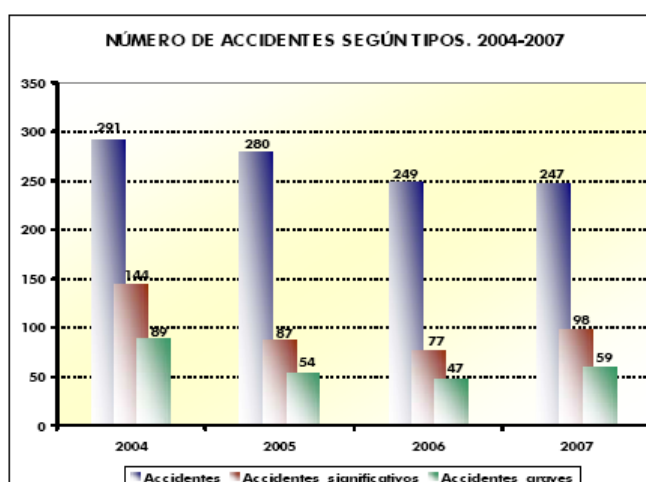
- Activa Rail
- Traccion Rail
- Eusko Trenbideak-Ferrocarriles Vascos
- Arcelormittal Siderail

### 3. SUMMARY - GENERAL ANALYSIS OF TRENDS

The following graphs describe evolution of the accident rate in recent years.

In the first graph one can see a **downward trend in the total number of accidents in recent years**. Significant and serious accidents, on the other hand, experienced a slight increase in 2007:

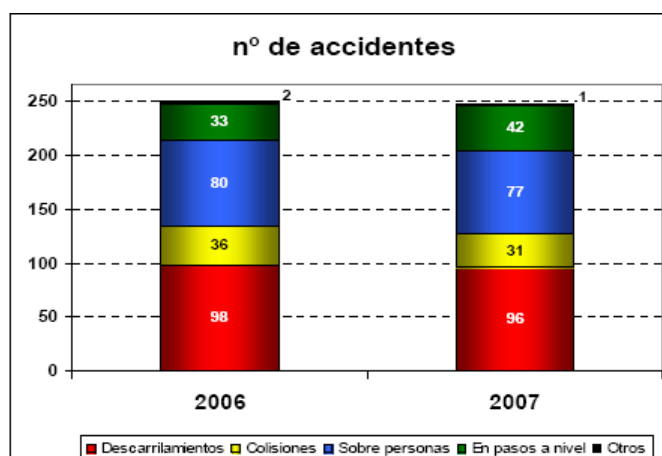
NUMBER OF ACCIDENTS BY TYPE. 2004-2007



Accidents      Significant accidents      Serious accidents

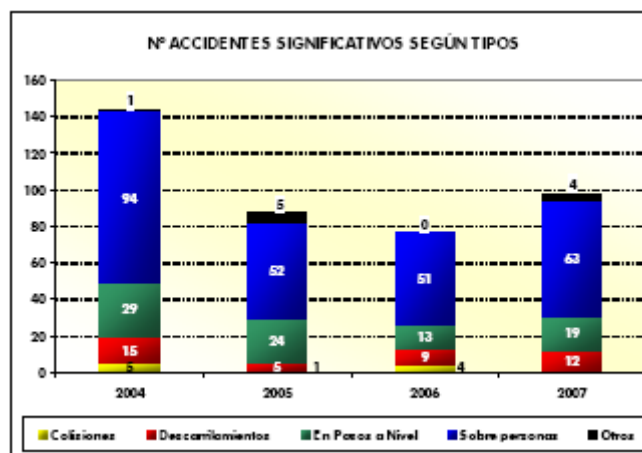
By accident type one sees a reduction as compared to the preceding year in derailments, collisions and accidents to persons, with only level-crossing accidents rising.

Number of accidents



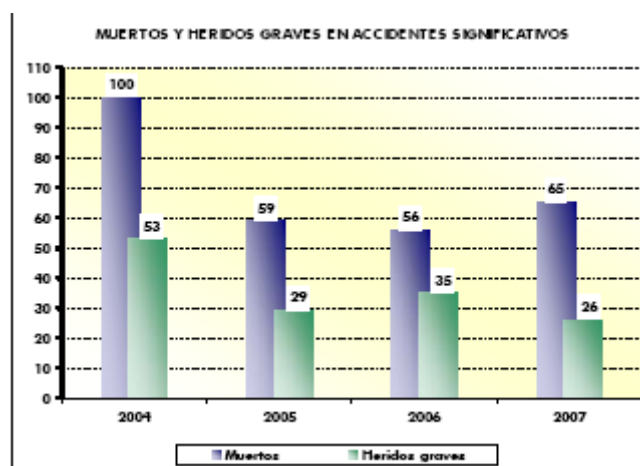
Derailments      Collisions      Accidents to persons      Level-crossing accidents      Other

## NUMBER OF SIGNIFICANT ACCIDENTS BY TYPE



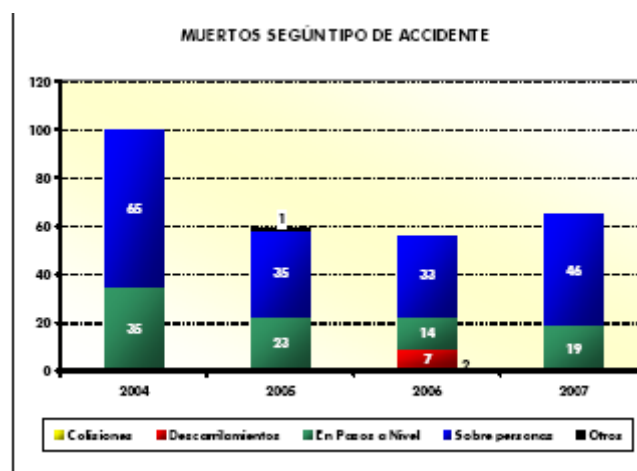
Collisions      Derailments      Level-crossing accidents      Accidents to persons      Other

## FATALITIES AND SERIOUS INJURIES IN SIGNIFICANT ACCIDENTS



Fatalities      Serious injuries

## FATALITIES BY TYPE OF ACCIDENT



Collisions      Derailments      Level-crossing accidents      Accidents to persons      Other



## C. ORGANISATIONAL ASPECTS

### 1. ORGANISATIONAL STRUCTURE - INTRODUCTION

Within the Government of Spain, the Ministry of Development is the department responsible for the rail sector as a whole. Under Rail Sector Act 39/2003 of 17 November, its main areas of competence are:

- strategic planning of the rail sector, both of infrastructure and supply of services.
- general organisation and regulation of the rail system, in particular in all matters relating to safety and interoperability and to relations between actors in the sector.
- setting targets and supervising the activity of the public rail undertakings, ADIF and RENFE, and their financing arrangements.

Further information on its areas of competence and structure can be found at: [www.fomento.es](http://www.fomento.es)

Within the Development Ministry, the **Railways Department** is responsible for exercising powers and responsibilities in relation to railways<sup>2</sup>.

The Railways Department comprises the following bodies:

- The Subdirectorate for Plans and Projects
- The Construction Subdirectorate
- The Rail Transport Regulation, Inspection and Standards Division, responsible transitionally for performance of the functions covered by this report. Specifically, under Royal Decree 1476/2004, it has been allocated the following functions:
  - e) *Drawing up draft general provisions relating to railways and coordination with other government bodies and public entities on rail matters.*
  - f) *The regulation, organisation and inspection of rail transport, in accordance with the legislation in force, and monitoring the management contract (contrato programa) with RENFE and FEVE.*

Annex **B.1** contains an organisational chart of the Railways Department.

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<sup>2</sup> Article 5 of Royal Decree 1476/2004 of 18 June implementing the basic organisational structure of the Development Ministry specifies the competences of the Railways Department.



## 2. RELATIONSHIP BETWEEN THE NATIONAL SAFETY AUTHORITY AND OTHER NATIONAL BODIES.

In 2007, in addition to the Railways Department, the main actors in the rail system have been:

### ▪ Rail Infrastructure Manager (ADIF)

This was created by Rail Sector Act, Act 39/2003 of 17 November. The statutes of ADIF were laid down in Royal Decree 2395/2004 of 30 December 2004. It began operation on 1 January 2005. ADIF is a public enterprise, with managerial autonomy within the limits laid down by its governing regulations and exists within the Development Ministry. It has its own legal personality, full capacity to work for the achievement of its ends, and its own assets. Its principal objects are to manage and construct rail infrastructure.

ADIF runs the general interest rail network (RFIG), with the exception of the network under FEVE. As well as managing (operation and maintenance) of that rail infrastructure, it is responsible for the construction of any lines commissioned by the State, funded either from its own resources, if it owns them, or out of the State budget, where State-owned.

Further information about its powers and structure can be found at: [www.adif.es](http://www.adif.es)

### ▪ RENFE-Operadora

The existing undertaking RENFE-Operadora was created by Rail Sector Act, Act 39/2003 of 17 November, as a public enterprise. RENFE's statutes were established in Royal Decree 2396/2004 of 30 December 2004. It commenced operation on 1 January 2005.

RENFE-Operadora was created by splitting off the rail service provision business units and other commercial activities from the former rail undertaking.

RENFE-Operadora is a public enterprise, with managerial autonomy within the limits laid down by its governing regulations and exists within the Development Ministry. It has its own legal personality, full capacity to work for the achievement of its ends, and its own assets. Its objects are the provision of passenger and freight rail services and other services or activities complimentary or linked to rail transport.

Further information about its powers and structure can be found at: [www.renfe.es](http://www.renfe.es)

- **Other operators**

As a result of liberalisation of the freight transport sector new operators are gradually joining the rail sector. In the course of 2006, in addition to RENFE-Operadora, two undertakings obtained the requisite safety certificate. In 2007 a further undertaking obtained a safety certificate, and commenced operation during the year.

- **Comité de Regulación Ferroviaria (Rail Regulation Committee)**

This is the rail sector regulator. It is a collegiate body under the Secretariat of State for Infrastructure and Planning of the Development Ministry. It is composed of officials from the Development Ministry and its principal mission is:

- to ensure plurality in the supply of rail services.
- to guarantee equality for all operators in the terms of access to the market.
- to resolve disputes between ADIF and the rail undertakings.

Further information about its competences and structure can be found at:

[http://www.fomento.es/MFOM/LANG\\_CASTELLANO/DIRECCIONES\\_GENERALES/ORGANOS\\_COLEGIADOS/CRF/](http://www.fomento.es/MFOM/LANG_CASTELLANO/DIRECCIONES_GENERALES/ORGANOS_COLEGIADOS/CRF/)

- **Comisión de Investigación de Accidentes (Accident Investigation Commission).**

The Accident Investigation Commission was created in 2007, under the Development Ministry, but independent of the National Safety Authority, of ADIF and of the operators, as set out in Royal Decree 810/2007, and complies fully with the provisions of Directive 2004/49.

**Annex B.2** contains an organisational chart setting out the relationships between the main actors in the system.

## D. EVOLUTION OF RAILWAY SAFETY

### 1. INITIATIVES TO MAINTAIN/IMPROVE SAFETY

#### 1.1. GENERAL SAFETY IMPROVEMENT POLICIES

The reference framework for infrastructure and transport in Spain is the Strategic Infrastructure and Transport Plan (**Plan Estratégico de Infraestructuras y Transporte, PEIT**), approved by the Government on 15 July 2005.

Its basic objectives include expressly that of improving the already high levels of railway transport safety, paying particular attention to eliminating and improving the safety of level crossings.

In accordance with the PEIT objectives, the **main safety measures of the Development Ministry during 2007** have been a continuation of the medium-term activities initiated in previous years:

- **2005-2012 Level Crossings Safety Plan**, with planned investment of EUR 1 080 million aimed at:
  - eliminating more than 50% of the 3 764 public crossings in operation (including the FEVE network, not covered by this report)
  - improving the protection system of the remaining crossings
- **2005-2009 RENFE-Operadora Strategic Safety Plan**, intended to reduce the Acceptable Rate of Risk (ARR) to 0.030 accidents/million train-kilometres as compared with 0.075 in 2005 (under the previous administration the average was 0.78). Planned investment is EUR 291 million.
- **2006-2010 Adif Strategic Plan**, intended in the safety field to reduce the rate of train accidents attributable to infrastructure by 60% in relation to the annual average of the preceding administration.

In order to achieve this target the **Programme of Actions to Improve the Safety and Functionality of the Network** is being implemented which, in the timeframe of the Strategic Plan, has planned investment of EUR 638 million.

- Introduction of the **ASFA Digital** system, approval having been given to prototype tests on 2 500 km and a contract having been awarded for the manufacture, supply and assembly of 2 650 sets of equipment.

#### 1.2. OTHER STEPS TO IMPROVE SAFETY

In addition to implementing the main strategies referred to in the preceding section, other specific work has been done during 2007, focused on solving particular problems arising from accident rates and the investigation of events which have occurred.

### 1.2.1. Actions by the Rail Infrastructure Manager (Adif).

- **MEASURES RELATING TO IMPROVING THE MANAGEMENT OF RAILWAY OPERATION .**
  - a. Technical measures:
    - Study, review and modification of the Technical Description of Automatic Half-barriers (AHB).
    - Continuing roll-out of **ASFA digital** equipment, which will bring about a qualitative improvement in the supervision and control of train speed.
  - b. Human factors:
    - Training campaigns, targeting drivers, on the General Operating Regulations (Reglamento General de Conducción, GOR) and the Traffic Manual (Manual de Circulación).
    - Processes of dissemination on the requirement to report as quickly as possible on any defects observed in the installations or their operation.
- **SIDINGS IMPROVEMENT PLAN**, promoted by ADIF in 2006, this continues to be implemented by the Infrastructure Maintenance Executive (Dirección Ejecutiva de Mantenimiento de Infraestructura).
- **BOUNDARIES AND FENCING PLAN** in both urban and rural environments. The aim is to prevent people and animals from coming onto the track.
- **ACTION PLAN** to provide a number of stations with underpasses, with additional information and warning features to increase passenger vigilance when crossing the tracks and reminding of the need to use the walkways intended for that purpose.

### 1.2.2. Actions carried out by the rail undertaking Renfe-Operadora.

- **SAFETY TARGETS.** The target set was to reduce accidents and incidents caused by human error, by introducing new technologies enabling the risk of accidents to be eliminated or reduced, particularly in the context of the driving of rail vehicles.

Driver support systems and improvement of human factors:

- **Asfa Digital:** 45 devices have been installed in 29 vehicles.

- **ASFA support:** 100 have been equipped. It is proposed 400 vehicles will be equipped.
- **ERTMS/ETCS:** this system has been installed in all trains with speeds over 200 km/h using the new high-speed lines.
- **SAFETY METHODS: SAFETY PLAN – PROGRAMME OF ACTION**

Continuing training and refresher courses.

- There have been 34 850 hours of training in the manufacturing and maintenance field.
- There have been 627 115 hours in the fields of traffic safety, civil protection and safety at work.
- A nationwide network of training centres has been set up which, in addition to conventional classrooms, have technology rooms with simulators/driver training units.
- The driving simulators are in operation at the training centres in Madrid, Barcelona and Valencia, and the simulators are being installed in Seville, Bilbao, León and Santiago.

The use of driving simulators affords a series of advantages salient of which are the introduction of training across Spain, an increase in the quality of training and the number of students who can be trained simultaneously, and standardisation of the training which is now nationwide.

Inspection activities by RENFE's Traffic Safety Department (DCSC) and areas of activity:

- a total of 48 513 inspections have been carried out.
- speed recorders have been analysed, with a total of 18.9 million km inspected.

Raising awareness of a culture of safety:

- 45 specific Safety Days have been held on speed control and actions to prevent the passing of signals.
- 23 Safety Days and Workshops have been held with Middle Managers and Structure personnel intended to detect and eliminate irregular practices and those in breach of regulations.

## 2. TREND ANALYSIS GIVING DETAILED DATA

This report sets out statistics on significant accidents<sup>3</sup> occurring on the network during 2007. A series of graphs have been prepared representing the trend for each of the Common Safety Indicators, using the criteria and formats supplied by the European Railway Agency.

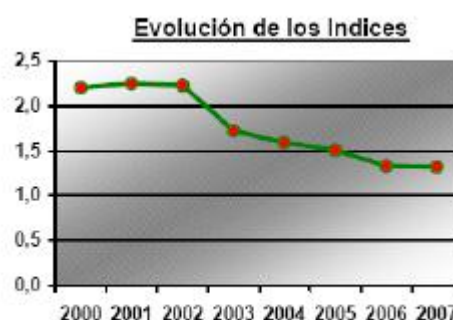
**Annex C** gives a breakdown of the statistics.

Looking at the total number of accidents (not only significant accidents), there were 247 accidents during 2007 as compared with 249 in the preceding year, which represents a fall of 0.40 %. The accident rate (number of accidents per million train-kilometres) was 1.32, less than the figure for the preceding year which was 1.33.

Evolution of accidents



Evolution of Indices



<sup>3</sup> **Accident:** [as defined by Directive 2004/49]: an unwanted or unintended sudden event or a specific chain of such events which have harmful consequences; accidents are divided into the following categories: collisions, derailments, level-crossing accidents, accidents to persons caused by rolling stock in motion, fires and others.

**Significant accident** [as defined by Regulation (EC) No 91/2003 of the European Parliament and of the Council of 16 December 2002 on rail transport statistics, applicable under *Directive 2004/49*]: 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.

**Serious accident** [as defined by Directive 2004/49]: any train collision or derailment of trains, resulting in the death of at least one person or serious injuries to five or more persons or extensive damage to rolling stock, the infrastructure or the environment, and any other similar accident with an obvious impact on railway safety regulation or the management of safety; 'extensive damage' means damage that can immediately be assessed by the investigating body to cost at least EUR 2 million in total.



### 3. RESULTS OF SAFETY RECOMMENDATIONS

The investigation of accidents and incidents occurring on the network is a fundamental tool in detecting and preventing risk. That investigation must include accidents which, although without serious personal or economic repercussions, display particular characteristics such as recurring in time or in a geographical area or the fact that their causes may be attributable to rail management.

Every accident therefore gives rise to the writing of a report, in which the causes are ascertained and particular recommendations made with a view to improving railway facilities, seeking possible guidelines for the conduct of the people involved and, in short, intended to prevent it recurring.

2007 saw investigation of a total of 59 serious accidents, as defined by Safety Directive 2004/49/EC, 16 of which have been classified as level-crossing accidents and the 43 others as accidents to persons.

They were caused:

- by lack of care by persons unconnected with the railway or as the result of third parties (58).
- by human error in connection with rail operation (1).

There are set out below in summary form **the most important safety recommendations** issued as a result of the investigation of those occurrences.

- Recommendations resulting from **level-crossing accidents**:
  - to promote awareness-raising campaigns, targeted at the public, on the dangers of not using the correct crossing places.
  - to look at eliminating level-crossings, or where this is not feasible, to improve their protection by installing luminous and acoustic signs, wherever such measures are necessary.
  - awareness-raising campaigns targeted at the public to stress the need to comply with traffic rules and signals.
  - to install signs indicating the danger of crossing railway lines.
- Recommendations resulting from **accidents to persons**:
  - to survey/eliminate access walkways between station platforms, where necessary.



- if the walkway between platforms is not removed, because there is no subway, to equip it with appropriate luminous and acoustic signing.
- to urge the need for subways to be maintained in a proper condition to prevent use of walkways between platforms.
- to promote awareness-raising campaigns targeted at the public stressing the dangers of crossing or walking along railway lines, making the public aware of the proper use of crossings.
- erecting additional fencing beside lines where necessary, as well as repairing existing boundaries and keeping them in good repair.
- update the signing on raised walkways and announce the approach of trains by loudspeaker.
- look at the possibility of constructing subways.
- awareness-raising campaigns to prevent passengers trying to board or alight from moving trains.
- if there is a "black spot" crossing, to eliminate it as quickly as possible using boundary structures and to increase vigilance in such places.

Attention is drawn separately to the level-crossing accident which occurred on 24/04/2007 in the province of Pontevedra, by reason both of its extent and because of its consequences. The recommendations arising from investigation of that accident are as follows:

- For train drivers:
  - refresher courses and training campaign on the General Operating Regulations and the Traffic Manual, reminding of the need to comply rigorously with the manual.
  - a requirement to report any defects observed in installations or in operation of the system.
- For level-crossings:
  - to amend RENFE's unified Automatic Half-Barrier Technical Description (AHB) and, in consequence, to amend chapter 8 'Level-crossing Protection' of the Traffic Manual as regards dovetailing the procedure for the timing of trains with the procedure for automatic opening due to excessive closure time.
  - to investigate whether these rates have been repeated at other points of the rail network.
- Aimed at improving driver support systems.
  - once development testing of the Asfa Digital equipment has been completed and the equipment is passed, it will be approved by the competent rail body, and its installation should be compulsory in all new rolling stock and it should be included in existing rolling stock as soon as possible.

## **E. MAIN CHANGES IN THE LEGISLATION AND RULES**

As already indicated in earlier sections of this report, regulatory implementation of the basic legislation established in preceding years continued in 2007 with approval during the year of the Rules on Traffic Safety.

The only piece of safety-related legislation drawn up and approved in 2007 was the following:

- ***ROYAL DECREE 810/2007 of 22 June approving the Rules on Traffic Safety in the General Interest Rail Network.***

This transposes into Spanish Act Safety Directive 2004/49/EC, bringing existing rail legislation on rail traffic safety and rail accident investigation, in particular the Rail Sector Rules, into line with EU requirements, defines liabilities for those matters and imposes on both the Rail Infrastructure Manager and on the rail undertakings conditions and requirements for performing their activity with due safety guarantees. The royal decree came into force on 7 September 2007.

Details of the earlier rules can be found in **Annex D**.

## F. EVOLUTION OF SAFETY CERTIFICATION AND AUTHORISATION

### 1. **SPANISH PROVISIONS ON THE ISSUANCE OF SAFETY CERTIFICATES AND AUTHORISATIONS UNDER DIRECTIVE 2004/49/EC.**

Until 7 September 2007 it was the Rail Sector Act, Act 39/2003, which provided that rail undertakings had to have **SAFETY CERTIFICATES** prior to providing the service.

From that date Royal Decree 810/2007 has been in force, and provides in Title II:

*'Title II, on safety authorisation and safety certificates, lays down the requirements and conditions for the grant, maintenance, suspension and revocation of those documents'*

Since entry to force of Royal Decree 810/2007, which transposes the Safety Directive, Directive 2004/49/EC, into Spanish law, safety certificates have therefore been issued in accordance with Article 10 of that Directive.

In 2007, until entry into force of Royal Decree 810/2007, the standard form certificate contained in Directive 2001/14/EC continued to be used, which already anticipated many of the features of the safety certificate defined in the Rail Safety Directive.

At the same time, likewise in accordance with the Rail Sector Rules, although the competence of the Railways Department, the certificates have in 2007 been issued on a transitional basis by ADIF until the Road and Rail Transport Safety Agency comes into operation.<sup>4</sup>

On the basis of the foregoing, in 2007 of the **Rail Infrastructure Manager (ADIF) issued two safety certificates** to the following rail undertakings, both taking place prior to 7 September:

- Comsa Rail Transport, on 29/06/2007;
- Continental-Rail, on 29/06/2007 (extension of a certificate);

under the rules in force until September 2007 the Infrastructure Manager was not obliged to have a **SAFETY AUTHORISATION**.

From commencement of Royal Decree 810/2007 its Transitional Provision One has applied:

*'From entry into force of this royal decree the Rail Infrastructure Manager shall, for the purposes of performing its functions, be treated as having the safety authorisation referred to in Article 9 of the Rules on Traffic Safety in the General Interest Rail Network.'*

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<sup>4</sup> For further information, see Transitional Provision Two of Royal Decree 2387/2004 of 30 December, approving the Rail Sector Rules.

*Notwithstanding the foregoing, the Rail Infrastructure Manager shall, within no more than two years from the date of entry into force of this royal decree, take the appropriate actions to comply with those rules and formally to apply for the relevant safety authorisation in accordance with the rules, submitting the documents referred to therein'*

## **2. ACCESS TO SPANISH SAFETY RULES AND ALL OTHER RELEVANT NATIONAL LEGISLATION FOR RAIL UNDERTAKINGS AND INFRASTRUCTURE MANAGERS**

Information about Spanish safety rules and all other related national legislation can be found on the website of the Development Ministry:

[http://www.fomento.es/MFOM/LANG\\_CASTELLANO/DIRECCIONES GENERALES/ FERROCARRILES/ INFORMACION/NORMATIVA/](http://www.fomento.es/MFOM/LANG_CASTELLANO/DIRECCIONES_GENERALES/ FERROCARRILES/ INFORMACION/NORMATIVA/)

That information can also be found in ADIF's Network Statement, which can be accessed in Spanish and English at:

[http://www.adif.es/empresa/index\\_decred\\_2008.html](http://www.adif.es/empresa/index_decred_2008.html)

The full text of the Spanish safety rules and laws can also be accessed on the website of the Official State Gazette (Boletín Oficial del Estado, BOE), as they are published there before coming into force:

[www.boe.es](http://www.boe.es)

## **G. SUPERVISION OF RAIL UNDERTAKINGS AND INFRASTRUCTURE MANAGERS**

Until creation of the Road and Rail Transport Safety Agency, the inspection of the rail system assigned to the Railways Department is being carried out transitionally by ADIF.

In any event, in the course of 2007 no significant anomaly has arisen which could have led to:

- modification, revocation or suspension of or a significant warning under safety certificates.
- complaints by ADIF about operators or vice versa.

## H. CONCLUSIONS OF THE NSA – PRIORITIES

During 2007, as in 2006, the functions of a National Safety Authority in Spain have been performed by the Railways Department. That task is transitional since the Act on State Agencies for the Improvement of Public Services, Act 28/2006 of 18 July, provides for the creation of the **Road and Rail Safety Agency**, called to act on a definitive basis as the National Safety Authority.

2007 has seen continued adaptation to the new rail model introduced in Spain from 2005:

- new rail undertakings have continued to enter the Spanish market and, having obtained licences, they have begun to apply for their safety certificates, to create internal structures and to position themselves in the market. Rail undertakings other than Renfe – Operadora have already been in operation during 2007.
- Royal Decree 810/2007 came into force, the transposition into Spanish law of the European Safety Directive, Directive 2004/49/EC.

The organisational and regulatory priorities in relation to safety for the coming years are:

- to proceed with the organisational development of the National Safety Authority, through creation of the Road and Rail Safety Agency.
- To add to and complete implementing regulations.

At the same time, in relation to accident rates, measures must be directed at promoting consolidation of a downwards, and therefore positive, trend in the number of accidents and incidents occurring on the general interest rail network.

## I. SOURCES OF INFORMATION

### Bibliography:

- [1] “CIRTRA 2007” – Traffic Operation Department, Adif.
- [2] “*Declaración sobre la Red 2.008 - Actualización*” – Infrastructure Operation Department, Adif.
- [3] EUROPEAN PARLIAMENT AND COUNCIL DIRECTIVE 2004/49/EC of 29 April 2004.
- [4] “*Informe Anual de Accidentes Año 2.007*” – Safety, Organisation and Human Resources Department -- Corporate Traffic Safety Department, RENFE Operadora.
- [5] “*Informe Anual de los Accidentes Ferroviarios de la Red Ferroviaria de Interés General, Año 2.007*” – Traffic Safety Department, Adif.
- [6] “*Plan Anual de Seguridad 2.008*” – Traffic Safety Department, RENFE Operadora.
- [7] “*Plan Estratégico de Infraestructuras y Transporte (PEIT)*” – Development Ministry – approved by the Government on 15 July 2005.
- [8] Royal Decree 810/2007 of 22 June, approving the Rules on Traffic Safety in the General Interest Rail Network.

### Websites:

- [9] [www.fomento.es](http://www.fomento.es)
- [10] [www.adif.es](http://www.adif.es)
- [11] [www.acciona.es](http://www.acciona.es)
- [12] [www.comsa.com](http://www.comsa.com)
- [13] [www.continentalrail.es](http://www.continentalrail.es)
- [14] [www.renfe.es](http://www.renfe.es)

In addition to the foregoing references, information supplied by the various rail operators and by the rail infrastructure manager has been used in writing this report.



## **J. ANNEXES**

<b>ANNEX A:</b>	<b>INFORMATION ON THE RAIL STRUCTURE</b>
<b>ANNEX B:</b>	<b>ORGANISATIONAL CHART OF THE NATIONAL SAFETY AUTHORITY</b>
<b>ANNEX C:</b>	<b>DATA ON CSIS – DEFINITIONS USED</b>
<b>ANNEX D:</b>	<b>SIGNIFICANT CHANGES IN LEGISLATION AND RULES</b>
<b>ANNEX E:</b>	<b>EVOLUTION IN SAFETY CERTIFICATION AND AUTHORISATION - FIGURES</b>

# ANNEX A: Information on the rail structure



GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE FOMENTO

SECRETARÍA DE ESTADO  
DE INFRAESTRUCTURAS  
SECRETARÍA GENERAL  
DE INFRAESTRUCTURAS  
DIRECCIÓN GENERAL  
DE FERROCARRILES

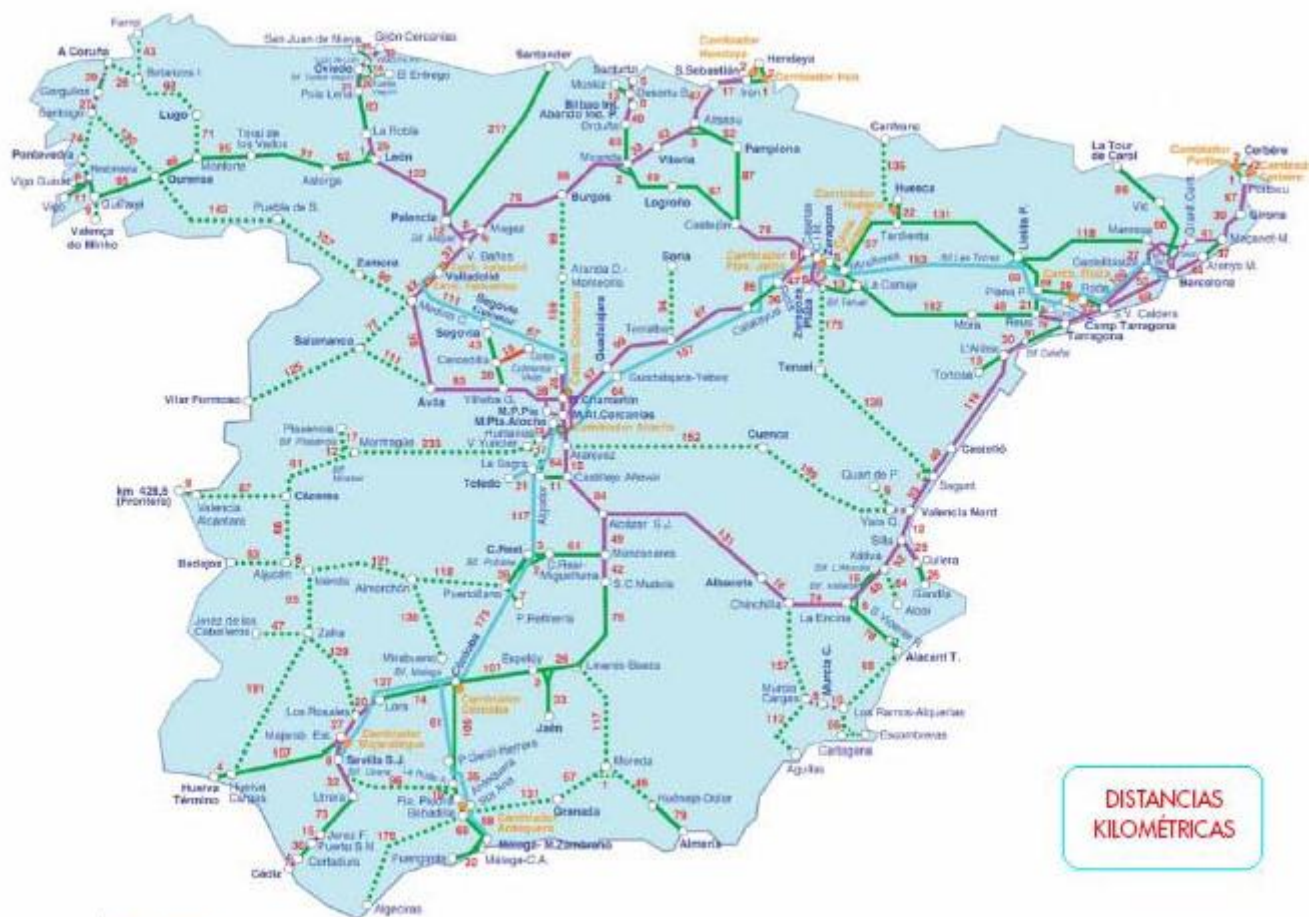
## ANNEX A.1: Network plans



GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE FOMENTO

SECRETARÍA DE ESTADO  
DE INFRAESTRUCTURAS  
SECRETARÍA GENERAL  
DE INFRAESTRUCTURAS  
DIRECCIÓN GENERAL  
DE FERROCARRILES



Febrero 2008

February 2008

DISTANCIAS  
KILOMÉTRICAS

DISTANCES IN KILOMETRES

Source: 2008 Network Statement. ADIF



February 2008

Trans-European Rail Freight Network (TERFN)

TEFN lines  
AV lines  
Other lines

Source: 2008 Network Statement. ADIF



GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE FOMENTO

SECRETARÍA DE ESTADO  
DE INFRAESTRUCTURAS  
SECRETARÍA GENERAL  
DE INFRAESTRUCTURAS  
DIRECCIÓN GENERAL  
DE FERROCARRILES



Febrero 2008

February 2008

MAXIMUM SPEEDS

Source: 2008 Network Statement. ADIF

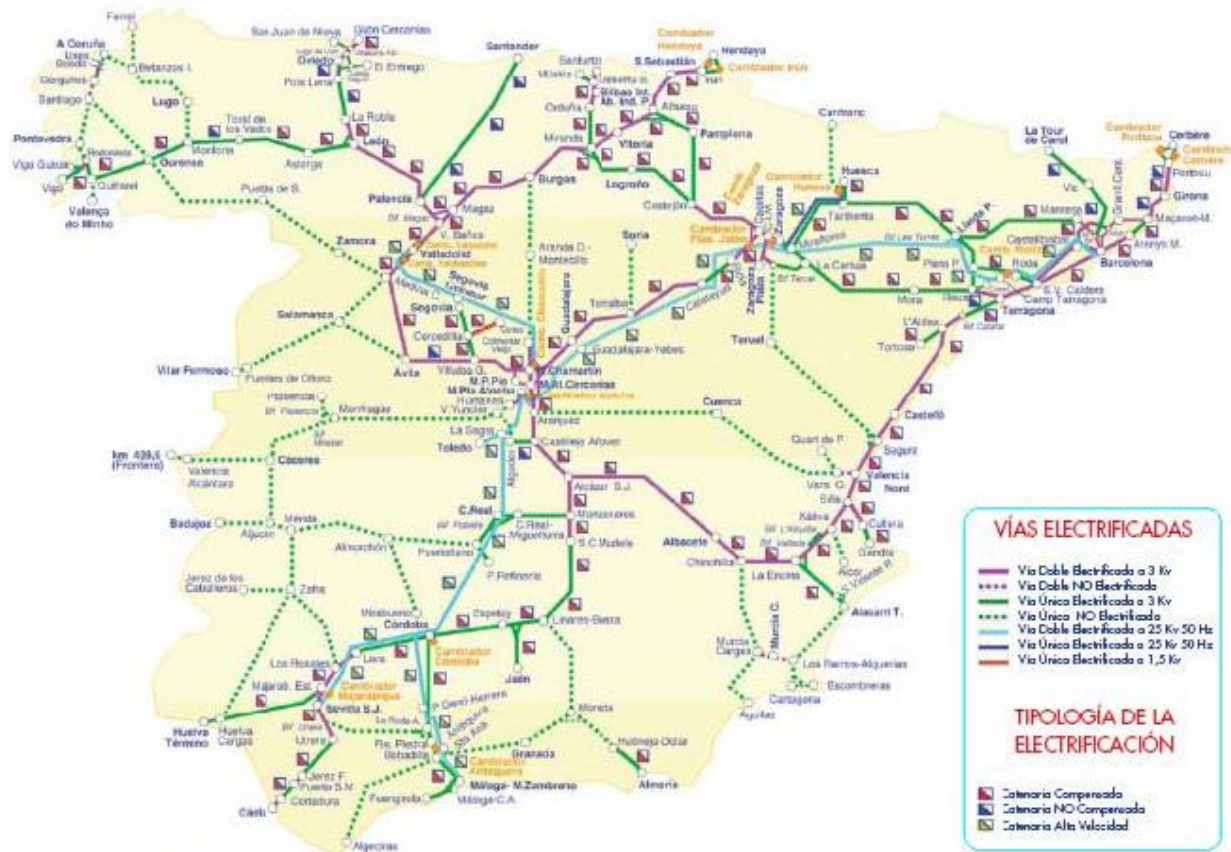




GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE FOMENTO

SECRETARÍA DE ESTADO  
DE INFRAESTRUCTURAS  
SECRETARÍA GENERAL  
DE INFRAESTRUCTURAS  
DIRECCIÓN GENERAL  
DE FERROCARRILES



Febrero 2008

February 2008

ELECTRIFIED LINES  
Non-electrified single-track line  
TYPES OF ELECTRIFICATION

Double-track electrified at 3 kV  
Double-track electrified at 25 kV 50 Hz  
Compensated catenary

Non-electrified double-track  
Single-track electrified at 25 kV 50 Hz  
Uncompensated catenary

Single-track electrified at 3 kV  
Single-track electrified at 1.5 kV  
High speed catenary

Source: 2008 Network Statement. ADIF

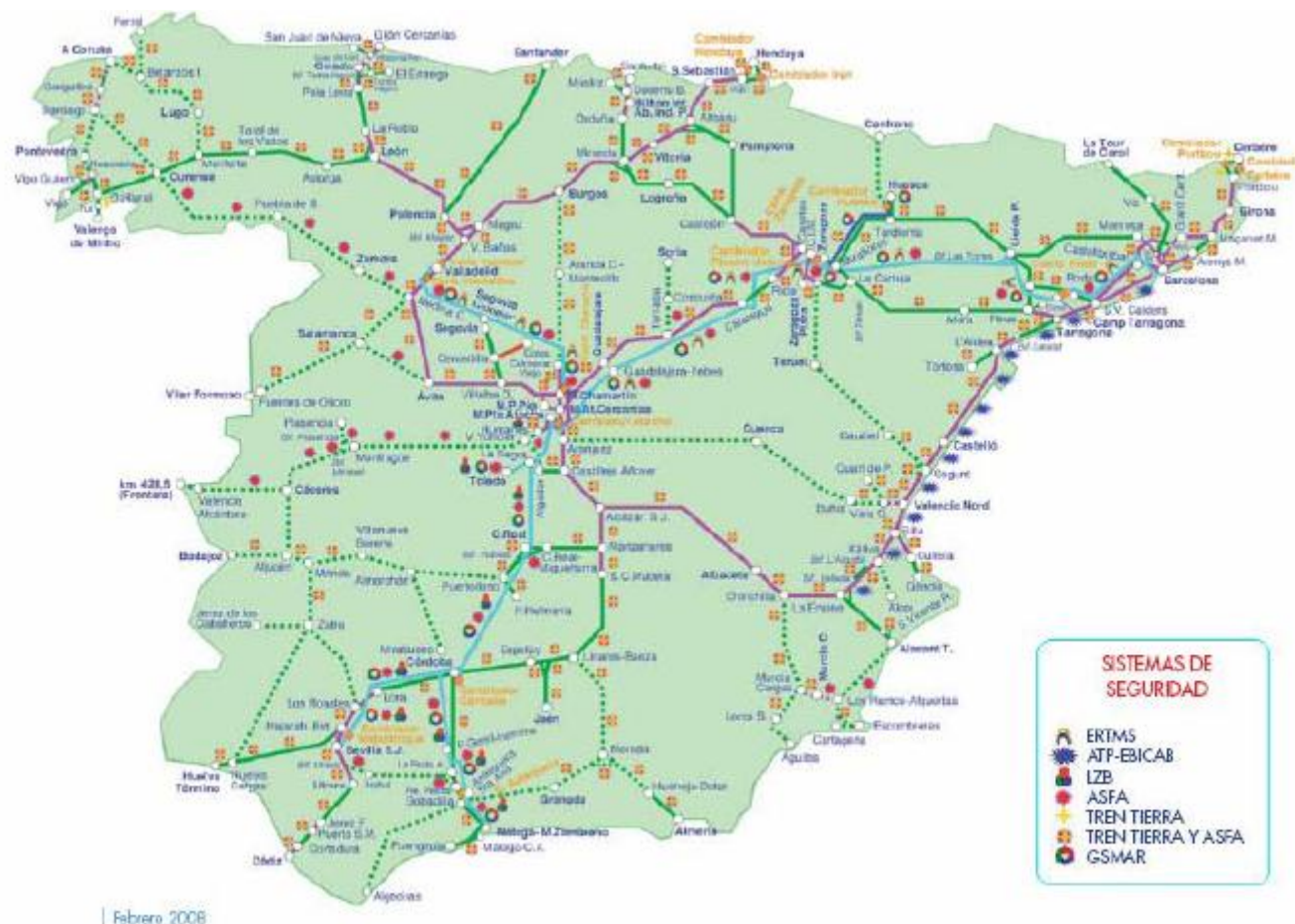




GOBIERNO  
DE ESPAÑA

MINISTERIO  
DE FOMENTO

SECRETARÍA DE ESTADO  
DE INFRAESTRUCTURAS  
SECRETARÍA GENERAL  
DE INFRAESTRUCTURAS  
DIRECCIÓN GENERAL  
DE FERROCARRILES



Febrero 2008

February 2008

SAFETY SYSTEMS ERTMS ATP EBICAB LZB ASFA

TRAIN-TO-TRACK TRAIN-TO-TRACK AND ASF GSMAR

Source: 2008 Network Statement. ADIF



February 2008

febrero 2008

TRACK GAUGE AND SWITCHING SYSTEMS
Spanish track gauge system (freight)
European track gauge
Talgo gauge-switching system
CaF gauge-switching system
Transfera axle-switching

Source: 2008 Network Statement. ADIF

# ANNEX A.2: List of infrastructure managers and rail undertakings with safety certificates

### A.2.1. Infrastructure manager(s)

Name	Address	Website/Link to Network Statement	Safety authorisation (number/date)	Date of commencement of trading	Total track length/width	Length of electrified track/network voltage	Total length of double/single track	Total length of high-speed line	ATP equipment used	Number of level crossings	Number of signals
<b>ADIF</b>	C/Miguel Angel, 23 28010 Madrid Spain	<a href="http://www.adif.es">www.adif.es</a>	Not available in 2007	01/01/2005	1,563km/1,435mm 11,736km/1,668mm 18 km /1,000mm 21 km/ mixed <b>13,338 km total</b>	3,601 km single-track 4,450 km double-track <b>8,051 km electrified</b>	8,811 km single-track 4,506 km double-track	1,563 km	ERTMS ASFA LZB ATP- EBICAB GSMR	2,811	[No data]

### A.2.2. Rail undertaking(s)

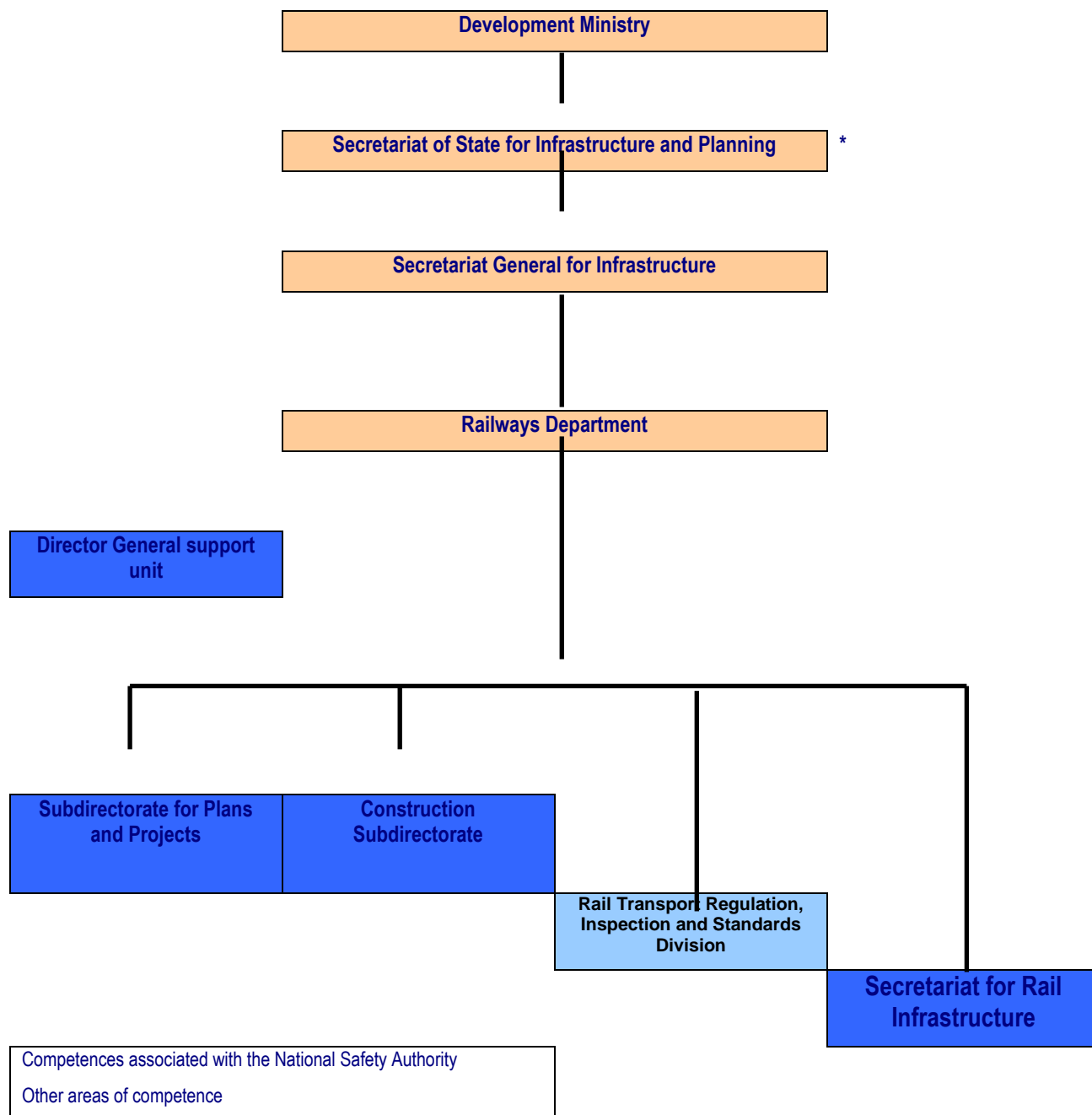
Name	Address	Website	2001/14/EC safety certificate (number/date)	2004/49/EC safety certificate A-B (number/date)	Date of commencement of trading	Type of traffic (freight, etc.)	Number of train sets	Number of train sets/suburban train set elements	Number of coaches/wagons	Number of drivers/safety personnel	Volume of passenger transport	Volume of freight transport
<b>RENFE Operadora</b>	Avenida Pio XII s/n, 28036 Madrid, Spain	<a href="http://www.renfe.es">www.renfe.es</a>	30/06/2006	-	1/01/2005	Passengers Freight	497	850	Coaches: 1 300 wagons: 13 817	Drivers: 5 058 Safety: 72	506 649 000	24 534 000 tonnes
<b>Continental Rail</b>	Avda America, 2-17B 28028 Madrid Spain	<a href="http://www.continentalrail.es">www.continentalrail.es</a>	29/06/2007	-	15/02/2007	Traction Freight	2	-	51	Drivers: 9	-	99 021 tonnes
<b>Acciona Rail Services</b>	Avds. De Suiza, 18-20 28220 Coslada (Madrid) Spain	<a href="http://www.acciona.es">www.acciona.es</a>	26/12/2006	-	28/01/2007	Freight	2	-	32 wagons	-	-	-
<b>Comsa Rail Transport</b>	C/Viriato, 47 08014 Barcelona Spain	<a href="http://www.comsa.com">www.comsa.com</a>	29/06/2007	-	No operation	Freight	4	-	0	Drivers: 17 Safety: 1	No operation	No operation

Abbreviations: HSL = high-speed line (as defined in Directive 96/48/EC)

ATP = automatic train protection

## ANNEX B: Organisational chart(s) of the National Safety Authority

### B.1. Diagram: Internal organisation

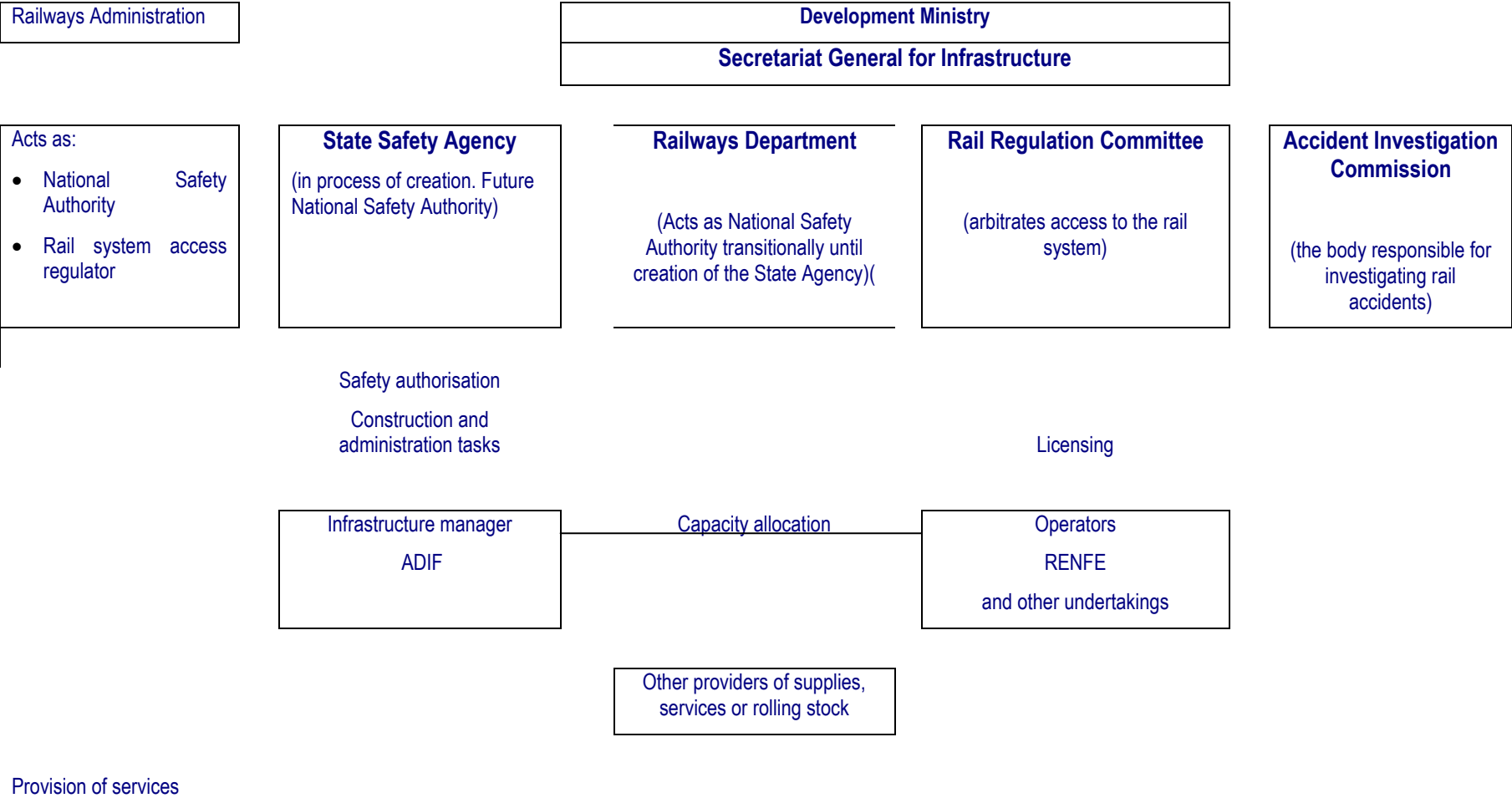


COMPETENCES

- Drawing up and monitoring long-term rail plan.
- Execution and monitoring of rail works.
- Preparing rules.
- Contracts and legal support.
- Drawing up and monitoring rail projects
- Regulation, organisation and inspection of rail transport.
- :General services: secretarial, human resources, IT.

\*As referred to as at 2007. It is now known as the Secretariat of State for Infrastructure ('Secretaria de Estado de Infraestructuras')

B.2. Diagram: Relationships with other national bodies





## ANNEX C: CSI Data – Definitions used

### C.1. CSI Data

#### SNAPSHOT OF RESULTS



2007 report: values related to 2006.

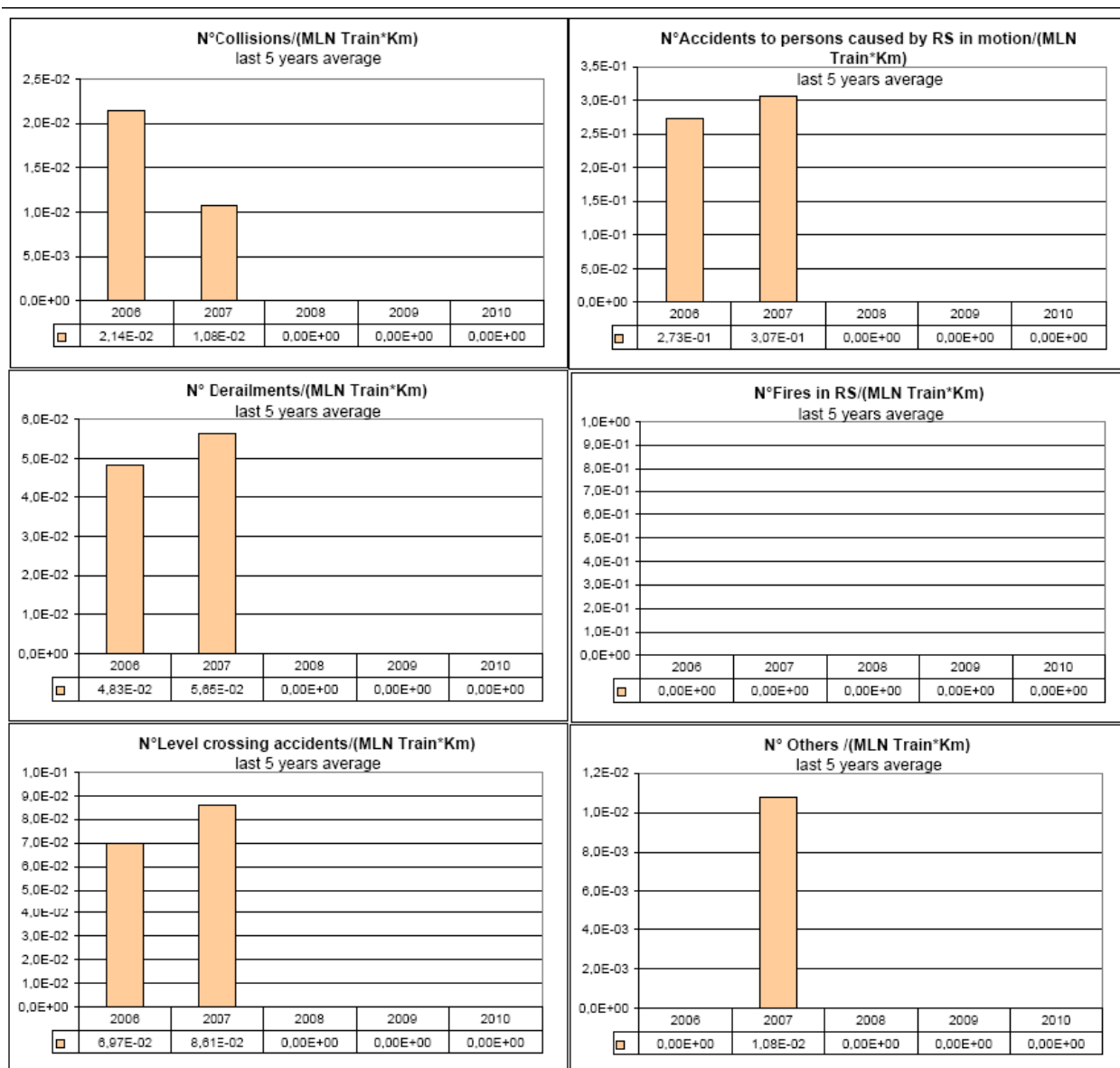
2008 report: values related to the average between 2006 and 2007.

2007 report values related to 2006.

2008 report values related to 2006 and 2007 average



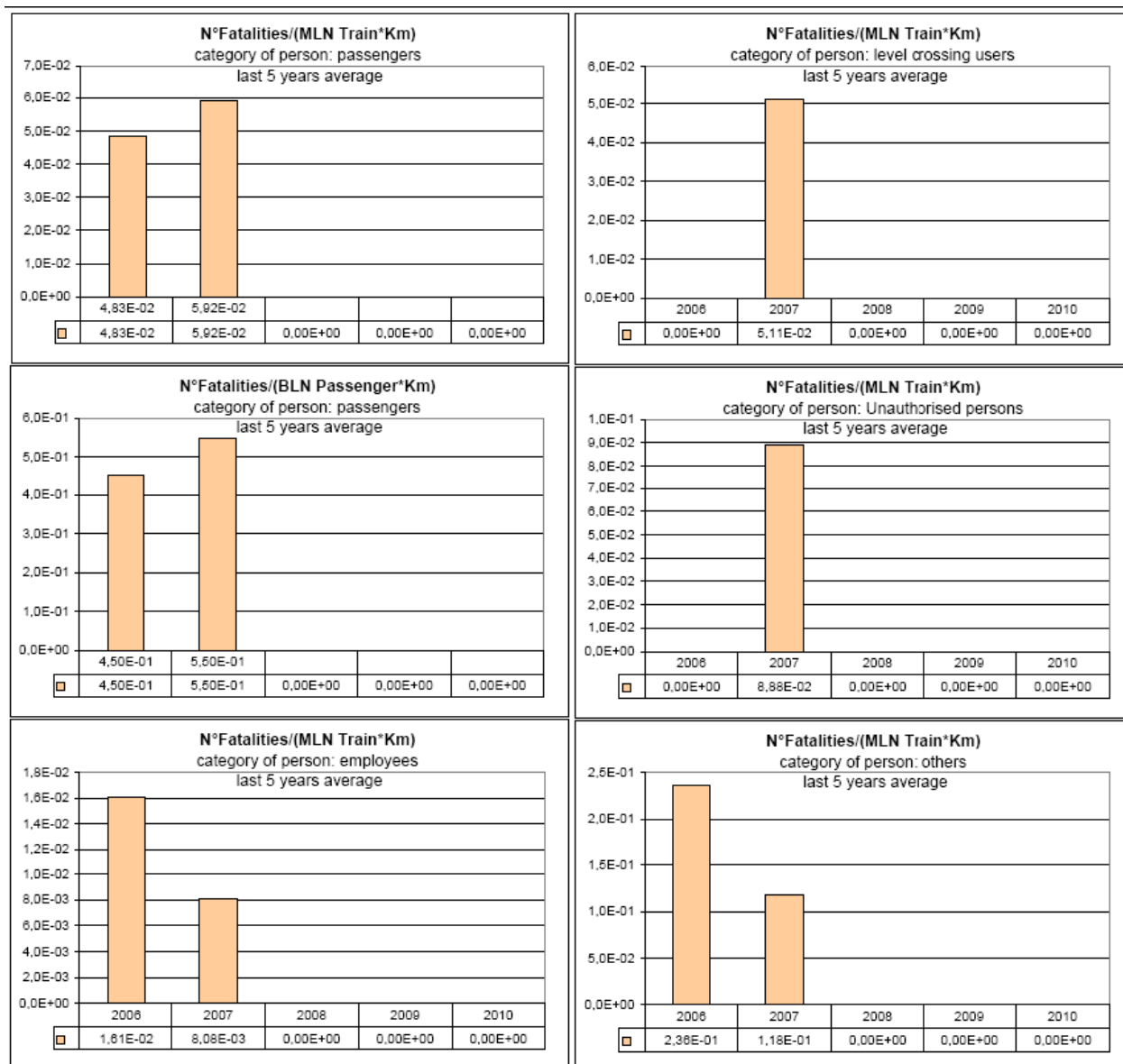
## ACCIDENTS, BY TYPE



2007 report: values related to 2006.

2008 report: values related to the average between 2006 and 2007.

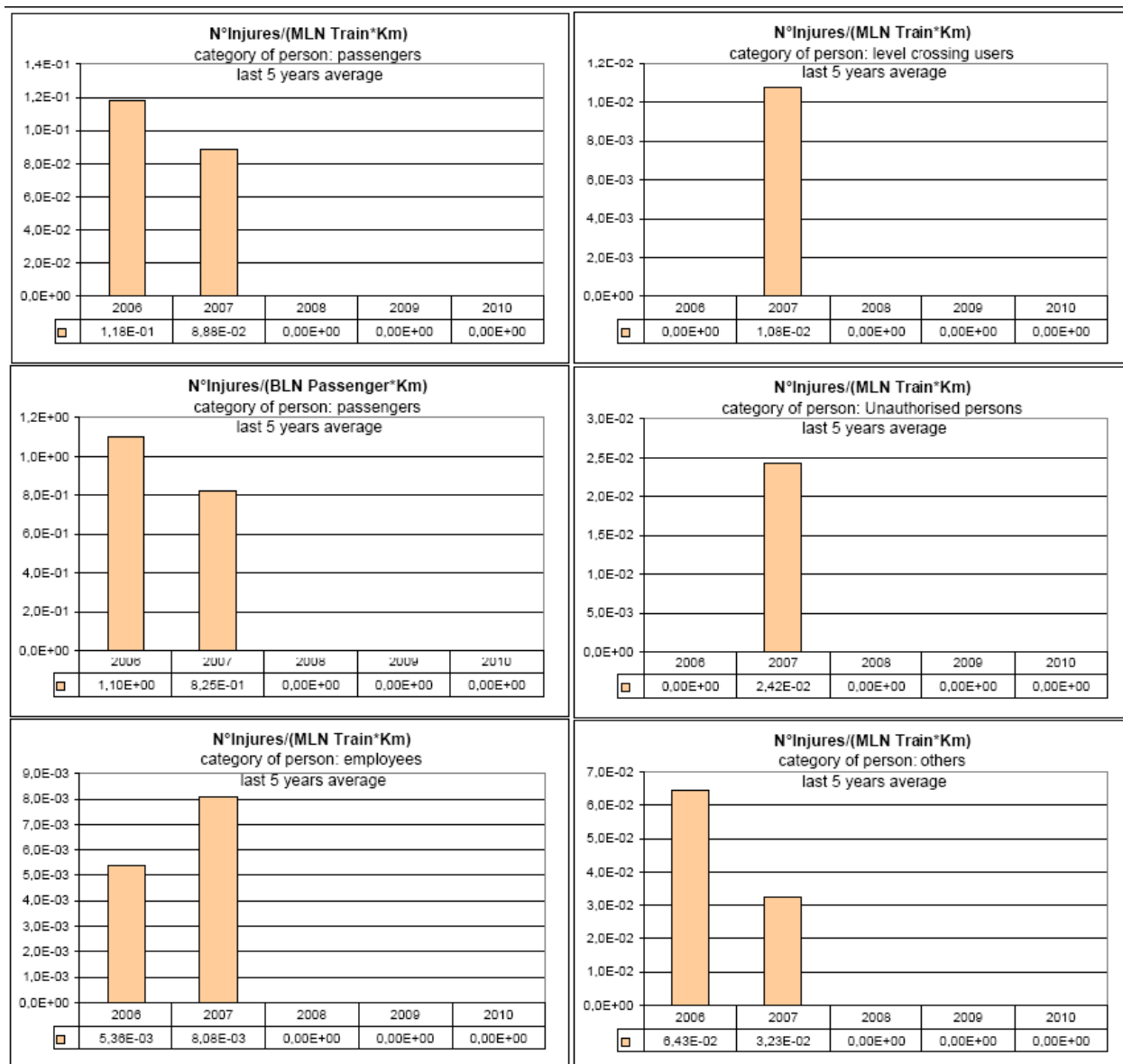
## FATALITIES, BY CATEGORY OF PERSONS INVOLVED



2007 report: values related to 2006.

2008 report: values related to the average between 2006 and 2007.

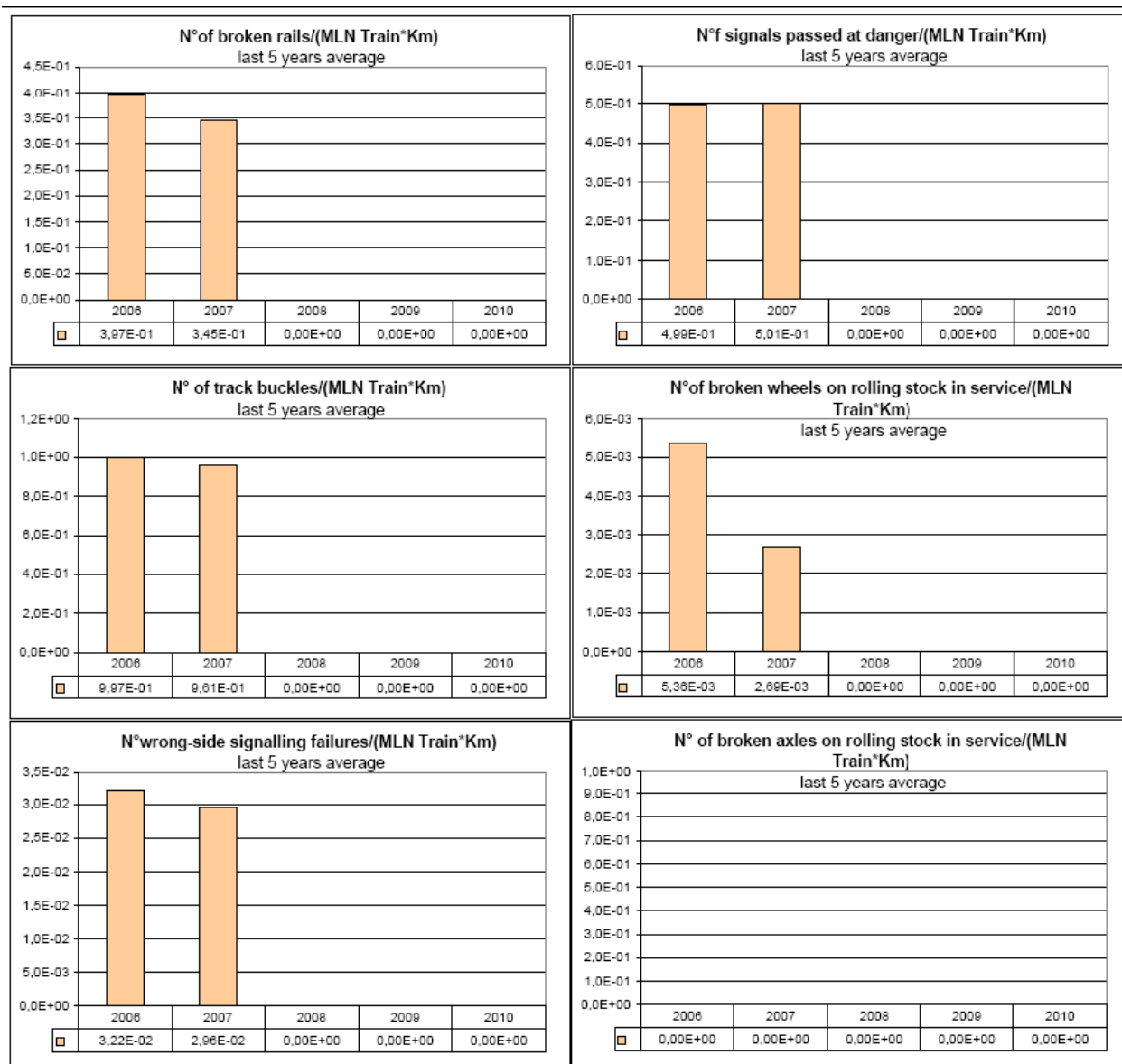
## INJURIES, BROKEN DOWN BY CATEGORY OF PERSONS INVOLVED



2007 report: values related to 2006.

2008 report: values related to the average between 2006 and 2007.

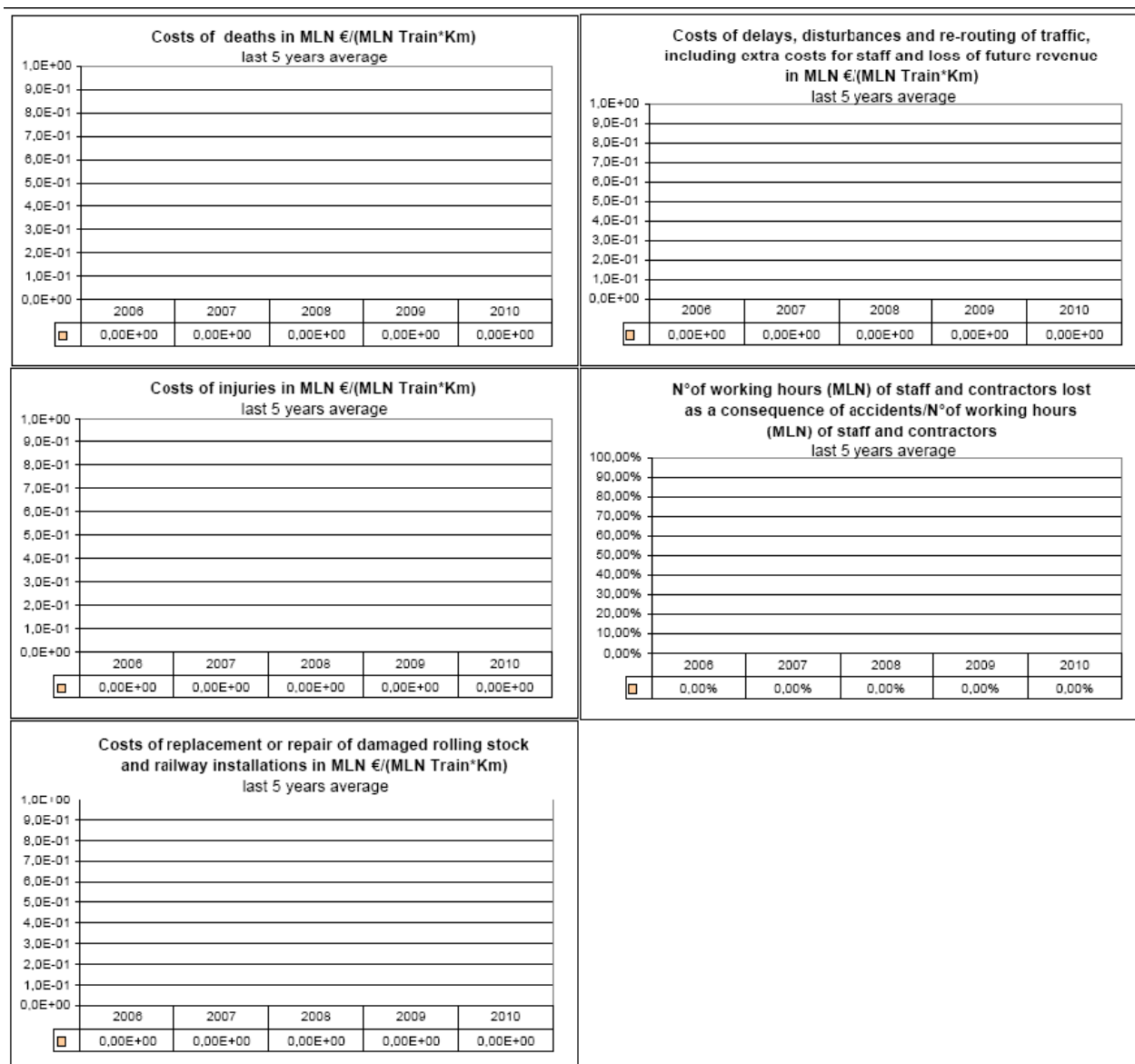
## ACCIDENT PRECURSORS



2007 report: values related to 2006.

2008 report: values related to the average between 2006 and 2007.

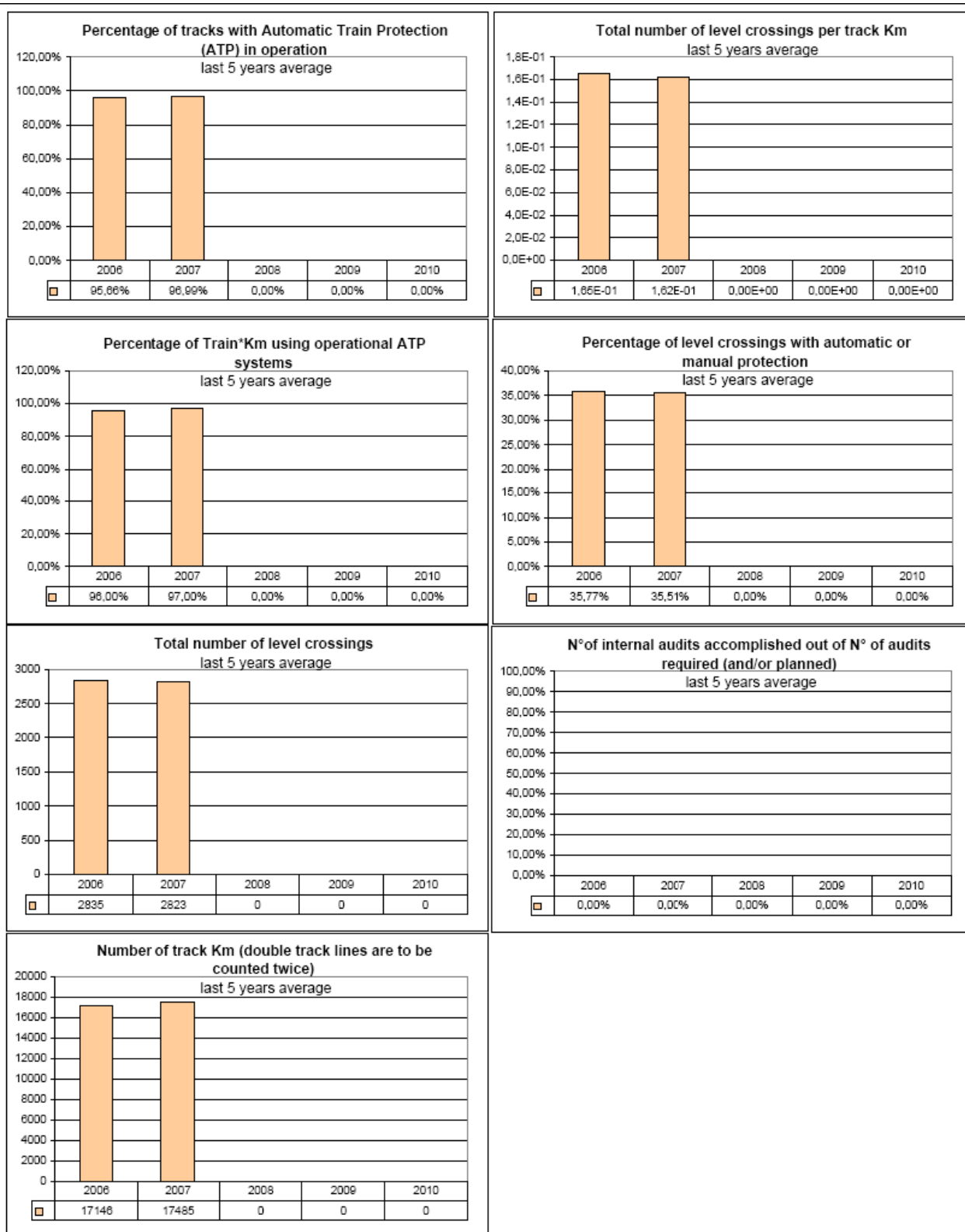
## TOTAL COST OF ACCIDENTS, NUMBER OF HOURS LOST BY PERSONNEL AND CONTRACTORS AS A RESULT OF ACCIDENTS



2007 report: values related to 2006.

2008 report: values related to the average between 2006 and 2007.

## TECHNICAL SAFETY OF INFRASTRUCTURE AND INFRASTRUCTURE EXECUTION; SAFETY MANAGEMENT



2007 report: values related to 2006.

2008 report: values related to the average between 2006 and 2007.

## **C.2. DEFINITIONS USED IN THIS ANNUAL REPORT**

### **C.2.1. REGULATION 91/03 DEFINITIONS WHICH SHOULD BE USED:**

#### **person killed**

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

#### **person seriously injured**

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

#### **passenger-km**

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**

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**

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

#### **significant accident**

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**

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**

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

A series of observations is made below based on the graphs contained in section C.1 of this annex:

- Only **significant accidents**, as defined in Regulation 91/2003, have been included.
- In comparison to the preceding report, the '**Other persons**' category has been broken down into the following groups:
  - Level-crossing users.
  - Unauthorised persons.
  - Other persons.
- The **incidents** data to be used according to the European Railway Agency coincide with the categories indicated under **critical events**, which is for its part one of the categories of incidents within the national definitions. That data will therefore be indicated in the graphs in this report alongside the data for 2006.

○ Track buckle	171
○ Broken rail	54
○ Broken wheels or axles	0
○ SPAD	93
○ Signalling failure	5
○ <b>TOTAL</b>	<b>323</b>
- National official statistics have no information on the economic repercussions of accidents:
  - Cost of deaths or injuries .
  - Cost of replacing or repairing damage to rolling stock and railway installations.
  - Cost of delays or disturbances to traffic.
  - Total hours worked as a result of accidents.
- National official statistics likewise have no information on safety management indicators.

## ANNEX D: Significant changes to legislation and rules

	Legal text	Date of entry into force	Reason for introduction (state whether a new provision or amendment of an existing provision)	Description
General national rail safety legislation	Royal Decree 810/2007 of 22 June, approving the Rules on Traffic Safety in the General Interest Rail Network	07/09/2007	New provision	Transposes the Safety Directive, Directive 2004/49/EC on the safety of Community railways.
Legislation on the national safety authority	Royal Decree 810/2007 of 22 June, approving the Rules on Traffic Safety in the General Interest Rail Network	07/09/2007	New provision	Transposes the Safety Directive, Directive 2004/49/EC on the safety of Community railways.
Legislation on notified bodies and evaluating, registration, examination, etc. bodies	-	-	-	-
National rail safety rules	Royal Decree 810/2007	07/09/2007	New provision	Approves the Rules on Traffic Safety in the General Interest Rail Network
Rules on national level safety targets and methods	Royal Decree 810/2007	07/09/2007	New provision	Establishes safety targets and methods at national level
Rules on the requirements applicable to safety management systems and to the safety certification of rail undertakings	Royal Decree 810/2007	07/09/2007	New provision	The requirements to be complied with by safety management systems for safety certification of rail undertakings and safety authorisation of the Rail Infrastructure Manager
Rules on the requirements applicable to safety management systems and to safety authorisation of infrastructure managers	Royal Decree 810/2007	07/09/2007	New provision	

	Legal text	Date of entry into force	Reason for introduction (state whether a new provision or amendment of an existing provision)	Description
Rules on the requirements applicable to wagon keepers	-	-	-	-
Rules on the requirements applicable to maintenance workshops	-	-	-	-
Rules concerning requirements for the authorisation of placing in service and maintenance of new and substantially altered rolling stock, including rules for exchange of rolling stock between railway undertakings, registration systems and requirements on testing procedures	-	-	-	-
Common operating rules of the railway network, including rules relating to signalling and traffic management procedures	Royal Decree 810/2007	07/09/2007	New provision	The operating arrangements for safety installations on the general interest network, including signalling and traffic management systems.
Rules on the requirements applicable to any internal operating rules (company rules) that must be established by infrastructure managers and railway undertakings	Royal Decree 810/2007	07/09/2007	New provision	The requirements to be complied with by the Rail Infrastructure Manager and rail undertakings in relation to the safety aspects of their internal operating regimes.
Rules concerning the requirements applicable to staff carrying out safety-critical tasks, including selection criteria, medical fitness and vocational training and certification	-	-	-	-

	Legal text	Date of entry into force	Reason for introduction (state whether a new provision or amendment of an existing provision)	Description
Rules relating to the investigation of accidents and incidents, including the making of recommendations	Royal Decree 810/2007	07/09/2007	New provision	The arrangements for the investigation of accidents and incidents.
Rules on the requirements applicable to national safety indicators, including the requirements relating to the method of gathering and analysing indicators	-	-	-	-
Rules on the requirements applicable to authorisation for putting infrastructure into service (tracks, bridges, tunnels, energy supply, automatic train protection, radio, signalling, interlocking, level crossings, platforms etc.).	-	-	-	-

## ANNEX E: Evolution in safety certification and authorisation

### E.1. Safety certificates under Directive 2001/14/EC

Number of safety certificates issued in 2007 under Directive 2001/14/EC to licence-holding rail undertakings	in the Member State of the undertaking	2
	in a different Member State	0

### E.2. Safety certificates under Directive 2004/49/EC

		New	Updated or modified	Renewed
E.2.1. Number of valid Part A safety certificates issued in 2007 to registered rail undertakings	in the Member State	0	0	0
	in a different Member State	0	0	0

		New	Updated or modified	Renewed
E.2.2. Number of valid Part B safety certificates issued in 2007 to registered rail undertakings	in the Member State	0	0	0
	in a different Member State	0	0	0

			A	R	P
E.2.3. Number of applications in 2007 for Part A safety certificates by registered rail undertakings	in the Member State relating to	new certificates	0	0	0
		updated/modified certificates	0	0	0
		renewed certificates	0	0	0
	in a different Member State, relating to	new certificates	0	0	0
		updated/modified certificates	0	0	0
		renewed certificates	0	0	0

			A	R	P
<b>E.2.4. Number of applications in 2007 for Part B certificates registered undertakings</b>	in the Member State relating to	new certificates	0	0	0
		updated/modified certificates	0	0	0
		renewed certificates	0	0	0
	in a different Member State, relating to	new certificates	0	0	0
		updated/modified certificates	0	0	0
		renewed certificates	0	0	0

A = Application accepted, certificate already issued

R = Rejected applications, no certificate issued

P = The case is pending, no certificate issued to date

#### **E.2.5. List of countries in which rail undertakings applying for a Part B safety certificate in the Member State have already obtained their Part A safety certificate**

Not applicable in the case of Spain

### **E.3. Safety authorisations under Directive 2004/49/EC**

	New	Updated or modified	Renewed
<b>E.3.1. Number of valid safety authorisations issued in 2007 to infrastructure managers registered in the Member State</b>	0	0	0

		A	R	P
<b>E.3.2. Number of applications for safety authorisations submitted in 2007 by infrastructure managers registered in the Member State</b>	new authorisations	0	0	0
	updated/modified authorisations	0	0	0
	renewed authorisations	0	0	0

A = Application accepted, authorisation already issued

R = Rejected applications, no authorisation issued

P = The case is pending, no authorisation issued to date

#### E.4. Procedural aspects – Part A safety certificates

		New	Updated or modified	Renewed
Average period in 2007 between receipt of an application and final issue of a Part A safety certificate to rail undertakings, once all necessary information has been received	a licence issued by the Member State	0	0	0
	a licence issued by a different Member State	0	0	0

#### E.5. Procedural aspects – Part B safety certificates

		New	Updated or modified	Renewed
Average period in 2007 between receipt of an application and final issue of a Part B safety certificate to rail undertakings, once all necessary information has been received	a licence issued by the Member State	0	0	0
	a licence issued by a different Member State	0	0	0

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

		New	Updated or modified	Renewed
Average period in 2007 between receipt of an application and final issue of a safety authorisation to infrastructure managers, once all necessary information has been received	a licence issued by the Member State	0	0	0
	a licence issued by a different Member State	0	0	0