



# **ANNUAL SAFETY REPORT**

**for Italian railways regulated by the Italian National  
Safety Authority**

**FOR THE YEAR 2011**

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## **PART A –GENERAL INFORMATION**

### **A.1 Purpose and scope of the Report**

This document has been prepared in accordance with Article 7 of Legislative Decree No 162 of 10 August 2007 'Implementing Directives 2004/49/EC and 2004/51/EC on safety on and the development of the Community's railways', which incorporates Article 18 of Directive 2004/49/EC.

This report describes the safety trends of the Italian railway system during 2011 which in that year fell within the scope of Article 2 of Legislative Decree No 162 of 10 August 2007, taking into account for the regional networks Article 27(4) of the Decree as amended by Article 2(1)(l) of Legislative Decree No 43 of 24 March 2011, and pursuant to the provisions of Article 4(2) of Legislative Decree No 162 of 10 August 2007 and subsequent amendments, for the specialised transborder infrastructures.

The above-mentioned scope for 2011 comprises the national rail infrastructure, the management of which is contracted out on a concession basis by Rete Ferroviaria Italiana SpA by Decree 138-T of 31 October 2000 of the Transport Ministry (the instrument of concession), and the rail transport service operated over the infrastructure by Railway Undertakings holding a safety certificate; the supervision of the safety of the railway operations on the regional networks was (and still is) carried out directly by the Ministry of Infrastructures and Transport. Since it was not possible to obtain directly the data regarding the Common Safety Indicators (CSI) of the regional networks also for 2011, the data collected by ISTAT [Italian National Institute of Statistics] was used.

### **A.2 Summary in English**

#### **PURPOSE AND SCOPE OF THE REPORT**

The present report has been worked out in conformity with Article 7 of Legislative Decree No 162 of 10.08.2007 'Implementation of the EU Dir. 2004/49/CE and 2004/51/CE' applying Article 18 of EU Directive 2004/49/CE. It describes the evolution of safety on the part of the Italian railway system under the Italian National Safety Authority's supervision in 2010, which consists of:

- the national railway infrastructure granted to Rete Ferroviaria Italiana S.p.A. (RFI) for management, by Ministry of Transport Decree No 138-T of 31/10/2000;
- certified railway undertakings operating on the network managed by RFI.

The report has been structured considering the ERA documents: 'Template - Structure for the content of the NSA Annual Safety Report' (Version 15 of 19/12/2011) and 'Guidelines for the use of the template - structure for the content of the NSA Annual Safety Report' (Version 11 of 19/12/2011). It is published on the Italian National Safety Authority website ([www.ansf.it](http://www.ansf.it)).

## **ORGANISATION**

Currently, the Italian National Safety Authority performs out the following tasks:

- technical regulation;
- technical admission of rolling stock;
- technical admission of infrastructural subsystems;
- safety certification of the RUs and the safety authorization of the IM;
- auditing and monitoring activity on RUs and IM.

## **THE DEVELOPMENT OF THE RAILWAY SAFETY**

The evolution of safety in the year 2011 shows a number of accidents in line with the 2006-2010 period, although up slightly compared to 2010, confirming the slight increase compared to 2009 recorded the previous year.

Analysis of Graph B.3.1 shows a pronounced downward trend in the number of accidents in the long run.

## **IMPORTANT CHANGES IN LEGISLATION AND REGULATION**

In 2011, significant progress has been made on the process of reorganisation of the regulatory process, essential not only to align national legislation with the principles of the Community directives, but, above all, to bring clarity to a pre-existing normative panorama that had become stratified over time and presented a lack of homogeneity and inconsistencies.

## **THE DEVELOPMENT OF THE SAFETY CERTIFICATION AND AUTHORIZATION**

12 railway companies were certified in accordance with Article 10 of Directive 2004/49/EC, as implemented by Legislative Decree No 162 of 10 August 2007. Two of them are new railway undertakings.

21 railway undertakings, operating railway services as they possess a safety certificate issued within the meaning of Directive 2001/14/EC, submitted a formal request to update their certification in accordance with the requirements of Regulation 653/2007.

## **SUPERVISION OF RAILWAY UNDERTAKINGS AND INFRASTRUCTURE MANAGER**

The supervision of RUs and the IM is mainly achieved through:

- data trend monitoring and analysis;
- investigations carried out by Italian National Safety Authority of accidents to find causes and to define appropriate measures;
- audits and inspections;
- analysis of the Annual Safety Reports by RUs and IM.

## **REPORTING ON THE APPLICATION OF THE CSM ON RISK EVALUATION AND ASSESSMENT**

In the report the application by two RUs of European Regulation 352/2009 is described.

### **CONCLUSIONS, PRIORITIES, SAFETY RECOMMENDATIONS**

The strengths of the national railway system can be identified in a substantial alignment of the accidents values with those of the major European countries, and in the availability of the ATP system on the entire network managed by RFI. Today it is possible to reap the benefits of massive state funding allocated for these technologies in recent years.

Finally, attention has to be drawn to the need to complete the process of acquisition by the Agency of jurisdiction over the regional networks connected to the national network. This step is currently tied to the completion of the equipping of these infrastructures with the ATP System that will allow consistency of operational rules, technologies and safety information between the regional and the national network managed by RFI.

## **PART B – INTRODUCTION**

### **B 1 Introduction to the Report**

This report describes safety trends in the part of the Italian railway system which the Agency is responsible for regulating and supervising.

The report, which is set out according to the guidelines given in the 'Template – Structure for the content of the NSA Annual Safety Report' (Version 15) and 'Guidelines for the use of the template – structure for the content of the NSA Annual Safety Report' (Version 12), issued by the ERA (European Railway Agency) on 19 December 2011, is published on the Italian National Safety Authority website [www.ansf.it](http://www.ansf.it), and has been forwarded to the European Railway Agency.

#### **B.1.2 Acronyms and definitions**

The following table sets out the definitions used in the document but which are not to be found in Legislative Decree No 162 of 10 August 2007.

Term	Definition
Agency	Italian National Safety Authority [Agenzia Nazionale per la Sicurezza delle Ferrovie]
ERA	European Railway Agency
RFI	Rete Ferroviaria Italiana (RFI) (Italian national Infrastructure Manager)
IUR accident	<p>Accidents are classed as 'IUR' (International Union of Railways) and taken into consideration in the statistics of that organisation if they have had the following consequences:</p> <ol style="list-style-type: none"> <li>1. fatalities (persons killed immediately or dying within 30 days as a result of the accident) or serious injury (persons hospitalised for more than 24 hours), excluding suicides or attempted suicides. Deaths due to crime or to natural causes are also excluded;</li> <li>2. significant damage to rolling stock, infrastructure or installations (damage greater than or equal to EUR 150 000) or serious disruption to traffic (main line blocked for more than six hours, diversion or transfer of passengers).</li> </ol> <p>IUR accidents do not include incidents on stretches of line blocked to rail traffic.</p>
typical accidents	<p>The following IUR accidents are classified as 'typical' by the Italian State Railways:</p> <ul style="list-style-type: none"> <li>■ collisions between rolling stock or between rolling stock and obstacles, excluding level-crossing accidents;</li> <li>■ derailments (of trains, during shunting or of isolated locomotives);</li> <li>■ level-crossing accidents involving collisions between rail and road vehicles at level crossings;</li> <li>■ fires on rolling stock in service.</li> </ul>
non-typical accidents	<p>On the Italian State Railways, non-typical accidents are defined as accidents to persons caused by rolling stock in motion. They include accidents that may occur to persons who:</p> <ul style="list-style-type: none"> <li>■ take part in shunting or coupling of vehicles;</li> <li>■ stand or walk on railway premises;</li> <li>■ are hit by an obstacle or vehicle while being transported by a railway vehicle;</li> <li>■ fall from a railway vehicle in motion;</li> <li>■ are run over at a level crossing.</li> </ul>
critical area	Area within which action needs to be taken in order to achieve the macro-targets.
macro-target	Desired state of the system to be achieved.

## **B.2 Information on the structure of the rail system**

### **B.2.1 Network map**

The national railway infrastructure map in Annex A.1 is also available on the website [www.rfi.it](http://www.rfi.it) (under 'Rete e territorio. La rete oggi') [Territory and projects: the network today]).

### **B.2.2 Infrastructure manager**

Rete Ferroviaria Italiana S.p.A., Piazza della Croce Rossa 1, 00161 Rome, Italy, is licensed to manage the national railway infrastructure.

RFI has still not provided the information relative to its network; the table in Annex A.2 relative to the network therefore shows the data updated to 31 December 2010 which was contained in the Annual Safety Report for 2010.

### **B.2.3 List of the Railway Undertakings**

The Railway Undertakings holding safety certificates as at 31 December 2011 and which are, therefore, licensed to provide freight or passenger services on the national infrastructure, are listed in Annex A.2.

The table contains the following information, supplied by the Railway Undertakings in their Annual Safety Reports for 2011 forwarded to this Agency:

- details of the most recent safety certificate issued under Directive 2001/14/EC or Directive 2004/49/EC (parts A and B);
- the date of commencement of trading;
- the types of service authorised;
- make-up of rolling stock used;
- the make-up of the personnel performing safety tasks;
- the make-up of the services (passenger and freight) provided, expressed in total train-kilometres.

A decrease in the traffic from 323 254 633 train-kilometres to 317 376 755 559 train-kilometres was recorded in 2011. However, the percentage of train-kilometres protected by Train Movement Protection Systems increased from 78% of the total traffic in 2008 to 92.6% in 2010 and to 99% in 2011. The failure to reach the complete coverage of the traffic is due to the malfunctioning of the



system caused by faults and the failure to complete the equipping of the trains by some Railway Undertakings. Suitable mitigating measures have been implemented for unprotected traffic.

The programme to equip rolling stock with train movement protection on-board sub-systems continued during 2011. 96% of the drivers' cabs were equipped at the end of 2011 compared with 92.6% in 2010. It should be noted that the figures also take into consideration locomotives which are not used on the network operated by RFI and for which the provision of the equipment is still not mandatory.

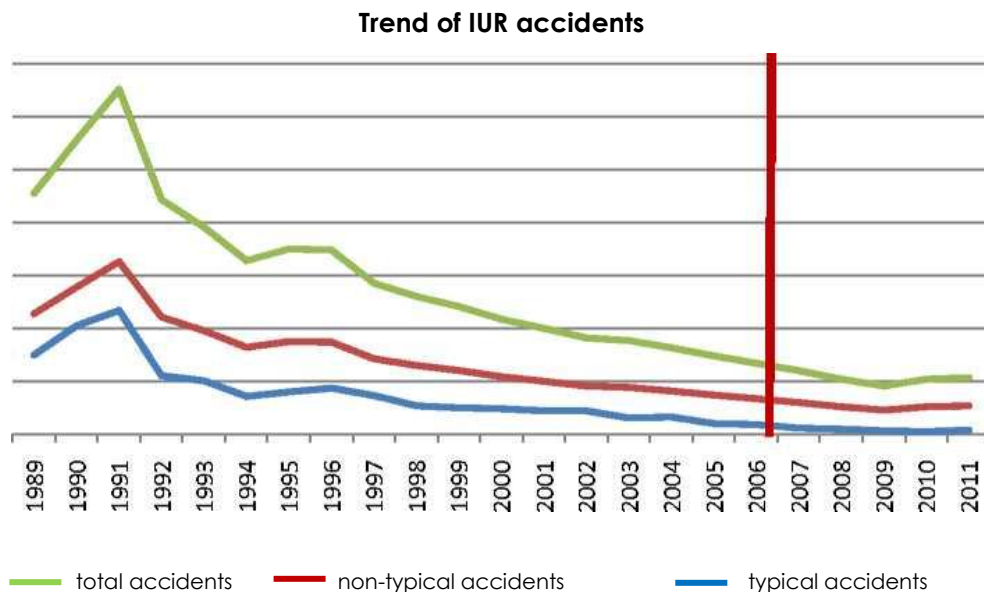
### **B.3 Summary and analysis of the general trend in railway safety**

The safety trend during 2011 shows a number of accidents in line with the period 2006-2010, with a slight increase compared with 2010, confirming the slight increase with respect to 2009 recorded the previous year. For details of the events and mitigating measures adopted, see point D below.

To allow comparison with the historical trend in number of accidents, a graph using historical data classified in accordance with a system established by the International Union of Railways (IUR - Union Internationale des Chemins de Fer – UIC) is again used in 2011. This data is analysed both as a whole and broken down as between 'typical' and 'non-typical' accidents. This breakdown arises from the need to focus the analysis on typical accidents most directly influenced by activities inherent in railway safety management, dealing separately with the problems related to the – more numerous – non-typical accidents, which are largely a function of infringements of rules on safety and railway policing by travellers or persons outside the rail service.

Diagram B.3.1 shows trends in the number of accidents over the period 1989-2011. The split in the curves of the graph for the year 2006, for which two values are given, is the result of the IUR raising (from €10,000 to €150,000) the loss threshold above which the accident must be reported to the IUR itself, and a change in the way serious injury is identified.

**Graph B.3.1 'Trend in accidents over the period 1989-2011'**



As already mentioned in the previous annual report, the change in how serious injury is defined has had a marginal effect on the accident trend. The non-typical accidents, which, due to their intrinsic characteristics, do not cause significant damage to property, have been practically unaffected by the change in the reference thresholds. It actually appears more difficult to compare data for typical accidents, especially in view of fact that the reference minimum for quantifying loss is now 15 times greater than previously. Even taking into consideration these points it should be noted that there is a reduction in the number of accidents over the long term.

## PART C – ORGANISATION

The Agency, established by Legislative Decree No 162 of 10 August 2007, is a non-economic public agency, being independent of the Investigating Body and the rail undertakings. It is supervised by the Ministry of Infrastructures and Transport.

The tasks of the Agency, as laid down by Legislative Decree No 162 of 10 August 2007, are, briefly:

- division of functions at a regulatory level;

- approval of system and sub-system technologies;
- safety certification of railway undertakings;
- verification of correct application of rules.

While awaiting the grant of managerial and financial independence to the Agency, the above Decree had provided for a system of 'initial application', through appropriate Agreements between the Ministry of Infrastructures and Transport, the Agency itself and 'Gruppo FS (Ferrovie dello Stato)' for the use of personnel and logistic support. This was in order to enable the transfer of railway safety tasks from personnel already partially involved in the safety of train movements and of railway operation (by Rete Ferroviaria Italiana S.p.A., Gruppo FS in general and by the Ministry) to the Agency.

Minute No 2 of 22 December 2009 between the Ministry of Infrastructure and Transport, Gruppo FS and the Agency, ratified by Ministry of Infrastructures and Transport Decree 5035 of 29 December 2009, completed the transfer to the Agency of the remaining powers for traffic safety as of 1 January 2010.

After the issuing of Presidential Decree No 34/2009 which approves the Statute of the Agency, Presidential Decree No 35/2009 regarding the relative organisation, and Presidential Decree No 36/2009, on the management of the administration and the accounts, Presidential Decree No 224 of 15 November 2011 was published on 19 January 2011 governing the recruitment of personnel by the Agency. This latter regulation defined, moreover, the procedures for recruitment of personnel previously employed exclusively by the Agency, thereby completing the regulatory framework implementing Legislative Decree No 162/2007. It will therefore be possible during the current year to conclude the above-mentioned 'initial application' phase referred to under Legislative Decree No 162/2007.

The organisation of the Authority's activities is divided into the following six sectors:

- administration, legal affairs and finance;
- monitoring, databases and institutional relations;
- service regulations;

- technical standards;
- authorisation and certification;
- inspection and controls.

The Authority's organisation is detailed in the diagram set out in Annex B.1.

The figure in Annex B.2 sets out the scheme of interaction between those involved in the safety of the rail system.

As of 31 December 2011, the Agency employed 110 personnel, while the maximum staffing levels with the Agency fully operational is 300 employees.

## **PART D – DEVELOPMENT OF RAILWAY SAFETY**

### ***D.1 Initiatives to maintain and improve safety performance***

Tables D.1.1 and D.1.2 below provide a list of the safety measures adopted during 2011 based on analyses of accidents and incidents and following other events and factors.

<b>Table D.1.1.</b> <b><i>Safety measures arising from an analysis of accidents or incidents</i></b>			
Date	Location	Particulars	<b><i>Safety measures provided</i></b>
0608/05/2011	Monza	Collisions with persons and accidents in general at level-crossings	RFI was requested to make known the measures adopted following the recommendations of the Investigating Body, to study the data to evaluate the adoption of specific information campaigns or further systems for the protection of roadside crossings. A detailed study was performed with the Directorate-General for road safety to assess the need to jointly intervene to combat the phenomenon of improper crossing of level crossings.

**Table D.1.1.**  
**Safety measures arising from an analysis of accidents or incidents**

Date	Location	Particulars	Safety measures provided
31/07/2011	Napoli CLE	Derailment of an EMU being shunted	Whilst awaiting identification of the causes of the derailment it was decided to suspend the traffic on the switch point in question and the running of the rolling stock in question. An active collaboration between the Railway Undertaking and the Infrastructure Manager was requested on several occasions for the conclusion of the investigations. Subsequently, on the basis of the conclusions of the investigations which did not identify a real cause, the Railway Undertaking in question was requested to monitor the turning values of the wheels after turning and the Infrastructure Manager was requested to check the conditions of maintenance and operation of the switch points of the same type as those involved in the accident.
22/09/11	Messina	Breakage of two leaf springs of wagon 33817 carrying hazardous goods	The Railway Undertaking was requested to notify personnel of the inspection to prevent the running of wagons with similar problems. The NSA with the National Vehicle Register on which the wagon was registered was notified in order to intervene on the ECM for definition of the causes of the accident and identification of the countermeasures.
07/10/11	Control Point Eccellente	Forcing open of the points by train 3672. Maintenance works with fault in progress	The Infrastructure Manager was requested to: <ul style="list-style-type: none"> <li>• eliminate the training failures, the environmental and operational conditions which can influence the activities of the maintenance personnel;</li> <li>• govern the cases in which the repair procedures with the fault in progress can actually be used;</li> <li>• guarantee the traceability of all the maintenance activities and the conditions in which they have been performed</li> </ul>

**Table D.1.1.**  
**Safety measures arising from an analysis of accidents or incidents**

Date	Location	Particulars	Safety measures provided
22/11/11	Control Point Feroletto	Derailment of train 3793 and collapse of a bridge	<p>The Infrastructure Manager was requested to:</p> <ul style="list-style-type: none"> <li>• adopt every possible precautionary measure, even restricting the movement of trains in cases in which seriously adverse weather conditions are expected;</li> <li>• review the current procedures in force, involving in the decision-making process persons in charge at a higher level.</li> <li>• Upgrading of the instructions in force in line with the principles of UIC leaflet 778-4 and subsequent additions;</li> <li>• Performance of extraordinary activities to carry out structural checks, inspections and monitoring designed to certify the structural suitability and the adequate defence of the railway line against hydrogeological risks for all the structures located in areas subject to the above-mentioned risks.</li> </ul>
Improper passing of the departure stop signals and improper resetting of ATP systems			<p>A request was made to intensify the action to guarantee correct behaviour by driving crews, to perform joint monitoring by the Railway Undertaking and the Infrastructure Manager and to provide suitable projects to be entered in the annual safety plan.</p>
Malfunctioning of EMU			<p>The Railway Undertaking in question was requested to clarify the causes which resulted in the registration of a series of faults to Eurostar rolling stock and to adopt the necessary mitigating measures. Following this request, the Railway Undertaking in question reported that specific measures had been adopted in the most important cases and that the number of malfunctions indicates an improvement when compared with previous years.</p>

**Table D.1.2.**  
**Safety measures arising from factors other than accidents or incidents**

<i>Description of area of interest</i>	<i>Description of precursor</i>	<b>Safety measure adopted</b>
Qualification of the personnel with safety management responsibilities	Definition of the minimum requirements for the performance of the role of Head of the Safety Management System for Railway Undertakings and Infrastructure Managers	Targeted training activities
Hazardous goods	Limitation of the times wagons containing hazardous goods remain in the depots	Traceability of the information
RU safety management system	Identification of the requirements of Part B for the organisational aspects under annex IV of Legislative Decree 162/07	Supplementary note to the guidelines for issue of safety certificate
Annual Report	Upgrading to the changed Annex I of Legislative Decree 162/07	Updating the guidelines for drawing up the annual report
Management of modifications	Application of the regulation and indications for the procedure to be implemented	Guidelines for application of Regulation (EC) No 352/2009
IM safety management system	Upgrading of the safety management system to the changed regulatory framework and responsibilities by the addition of elements necessary to satisfy the requirements of Regulation (EC) No 1169/2010, especially regarding the analysis, assessment and control of risks resulting from the activities identified within the system itself.	Obligations of the Infrastructure Manager regarding rail traffic safety and activities necessary for issue of the Safety Authorisation.
Authorisation for vehicle tests	- Requirements concerning the on-board subsystem for the authorisation of tests on vehicles	ANSF Memo 04239/11 - Requirements regarding the safety analysis of the automatic train movement control systems
Operation of trains not equipped with TMCS on-board subsystem and TDSS	- Introduction of further limitations for the mitigation of risks associated with the operation of trains not yet equipped with train movement protection subsystems,	Directive 1/dir/2011 operation of trains not equipped with TMCS on-board subsystem and TDSS on lines operated by RFI.

## **D.2 Detailed analysis of the trend of common safety indicators**

The table in Annex C.1 sets out the data regarding the Common Safety Indicators (CSI) provided for in Directive 2004/49/EC for 2011.

This paragraph only analyses the accidents which have occurred on the national railway infrastructure managed by RFI.

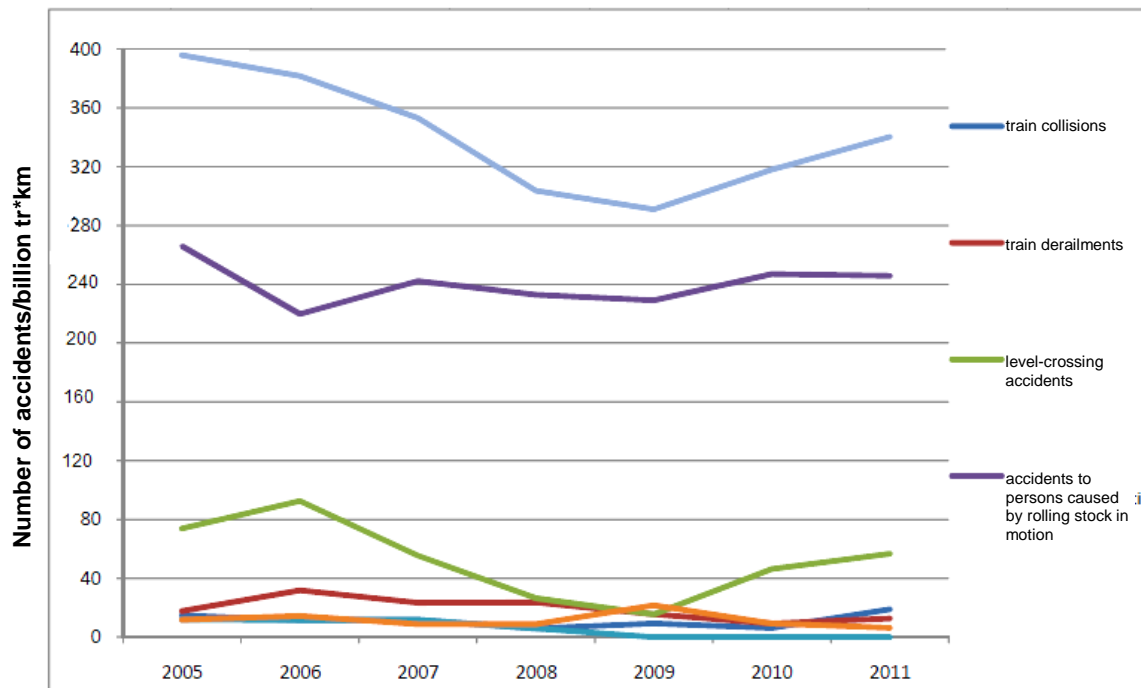
The following tables D.2.1, D.2.6 and figures D.2.2, D.2.3, D.2.4 and D.2.5 represent the accident trend used to work out the Common Safety Indicators over the period 2005-2011.



<b>Table D.2.1 Number of serious accidents, pursuant to Annex I of Legislative Decree 162/07 during the period 01/01/2005 – 31/12/2011</b>							
<b>ACCIDENTS</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
<b>Train collisions</b>	5	4	4	2	3	2	6
<b>Train derailments</b>	6	11	8	8	5	3	4
<b>Level-crossing accidents</b>	25	32	19	9	5	15	18
<b>Accidents to persons caused by rolling stock in motion</b>	90	76	83	79	74	80	78
<b>Fires on rolling stock</b>	4	4	4	2	0	0	0
<b>Other types of accidents (*)</b>	4	5	3	3	7	3	2
<b>TOTAL ACCIDENTS</b>	<b>134</b>	<b>132</b>	<b>121</b>	<b>103</b>	<b>94</b>	<b>103</b>	<b>108</b>
(*) 'Other accidents' describes all accidents not included in the previous categories, such as derailment and impacts during shunting or of work equipment, discharge of hazardous material							

Table D.2.1 and figure D.2.2 below show, respectively, the trend of the number of accidents during the period 2005-2011, in absolute values and in relation to traffic volume (expressed in billions of train-kilometres).

**Figure D.2.2 Trend of number of accidents over the 2005-2011 period**



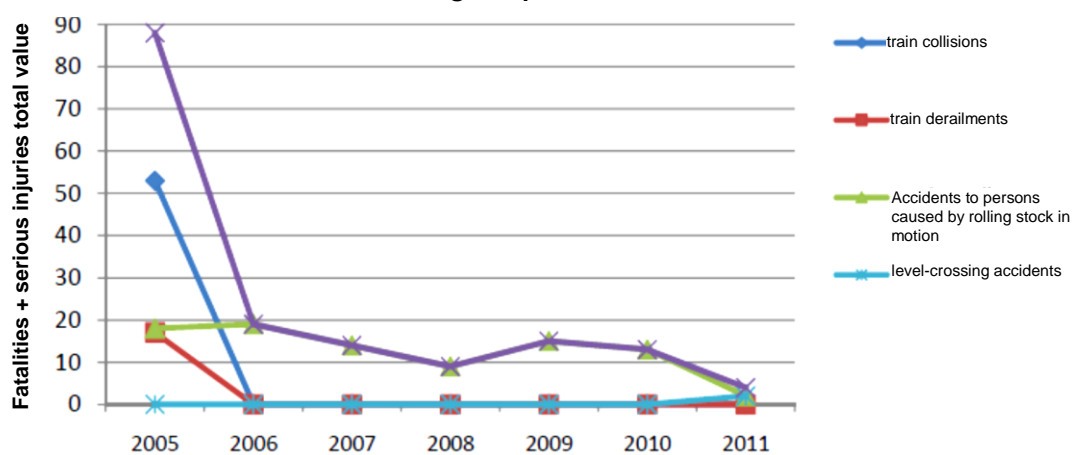
There was an increase in the total number of accidents in 2011 compared with the two previous years, although it must be noted that 2009 represented the lowest value for the period examined in terms of number of occurrences. The types of accidents which show an increase are the 'level-crossing accidents', the 'train collisions' and the 'train derailments'. The 'accidents to persons caused by rolling stock in motion' are substantially the same as the values of the previous year. With regard to the problem of level-crossing accidents, 2011 confirms the reversal in trend, already recorded in 2010, compared with the previous three-year period showing a significant drop in the number of occurrences. The reasons for these occurrences are mainly the improper behaviour of the level crossing users. With regard to the 'collisions of trains', it must be firstly noted that they refer to impacts of trains against other obstacles and there have been no collisions between trains since 2007. There were various causes of the collisions recorded in 2011, such as hydrogeological disturbance, vehicles improperly present on the railway line not at a level crossing, collisions with animals, falling of overhead lines and, in one case, impact against buffers. The 'train derailments' were often related to problems

linked with infrastructure maintenance. In one case a railway bridge collapsed after exceptionally high rainfall. With regard to the 'accidents to persons caused by rolling stock in motion', there was a slight drop in the number of occurrences due mainly to the reduction of serious accidents linked with collisions with workers operating in work sites and the falling of passengers from moving trains (see figures D.2.3, D.2.4 below). The need for further efforts to reduce the number of improper crossings of the railway line is emphasised.

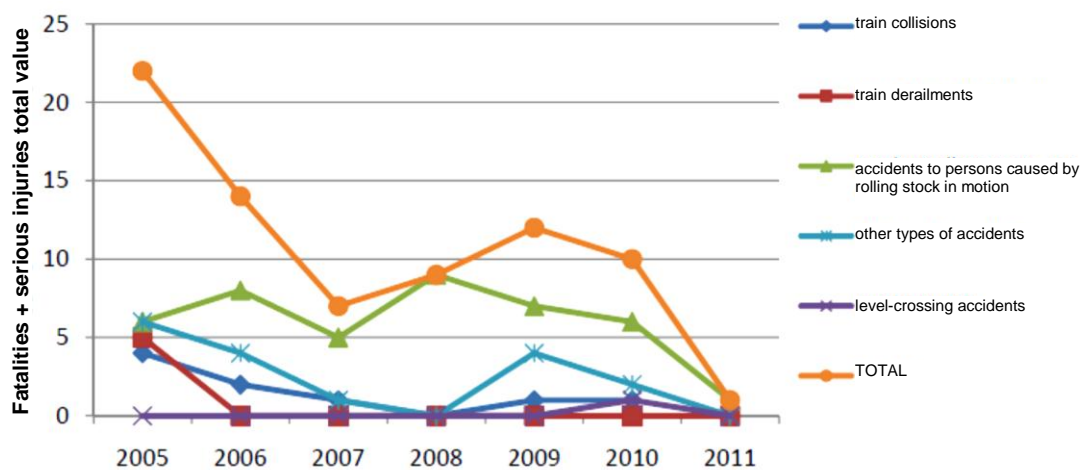
Figures D.2.3, D.2.4 and D.2.5 plot the trend in the number of people who were injured or died following accidents occurring during the period 2005-2011. Table D.2.6 shows the number of people injured and the number of people who died, classified in accordance with three categories of persons - passengers, personnel and other persons - in accordance with EUROSTAT statistics. The 'other persons' category includes level crossing users, unauthorised persons and all other persons not included in other categories.

Each figure plots the annual trend in the total number of persons injured or killed for each category of persons (passengers in figure D.2.3, railway personnel in figure D.2.4 and other persons in figure D.2.5). Graphs relating to overall values and values relating to each individual accident type are also shown (train collisions, train derailments, accidents at level crossings, accidents to persons caused by rolling stock in motion, fires on rolling stock and others). In order to facilitate the reading of the data in each figure, the types of accidents that have not caused injury to persons (death or severe injury) have been removed from each figure, such as the fires on rolling stock in figure D.2.3.

**Figure D.2.3 Overall trend in fatalities and serious injuries in the 'passengers' category during the period 2005-2011**



**Figure D.2.4 Overall trend in fatalities and serious injuries in the 'personnel' category during the period 2005-2011**



**Figure D.2.5 Overall trend in fatalities and serious injuries in the 'other' category during the period 2005-2011**

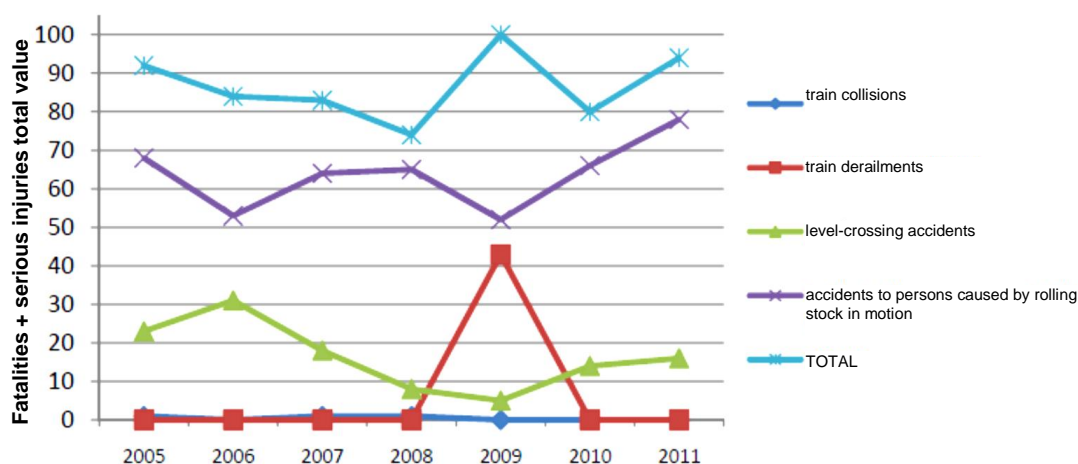


Figure D.2.3 shows that no derailments or collisions causing death or injury to passengers have been recorded since 2005. The overall figure for 2006 to 2010 coincides exactly with the accidents to persons caused by rolling stock in motion, whilst in 2011 there were the only 2 cases of passengers with serious injuries due to accidents at level crossings during the period in question. A reduction in the total number of occurrences may be seen, which demonstrates the effectiveness of the measures adopted to prevent collisions between trains (train movement protection systems) and the falling of passengers from moving trains (equipping of the passenger carriages with devices which do not allow the opening of doors with the train in movement); in fact, the values for the four-year period 2008-2011 represent only 32% of the occurrences during the four-year period 2005-2008. Figure D.2.4, relative to the personnel (railway personnel, including companies), shows that the lowest value for the entire period observed is for 2011. This value demonstrates the effectiveness of the measures adopted for the protection of the personnel operating in work sites even though there are still organisational and behavioural problems. The latest train derailments or fires that are relevant for purposes of the graph were registered as occurring in 2005.

Figure D.2.5 gives data relating to the 'other persons' category in the EUROSTAT statistics that, as noted previously, covers results in three categories ('level crossing users', 'unauthorised persons' and 'others') as provided for in the Common Safety Indicators and in Directive 149/09/EC. The figure shows the trend in these data both in aggregate terms and for each individual category. The figure for overall accidents is on the rise compared with the previous year and close to the peak recorded in 2009, which was characterised negatively by the Viareggio rail disaster. The components which are increasing in number are those related to collisions with persons or vehicles improperly present on the railway line, represented by the 'accidents to persons caused by rolling stock in motion' and by the 'level-crossing accidents'. The year 2011 registered no victims referable to the category of persons classified as 'others' in the Common Safety Indicators.

The following table D.2.6 shows details of consequences to persons during the period 2008-2011. The year 2011 values which are higher than those of 2010 are highlighted in red.

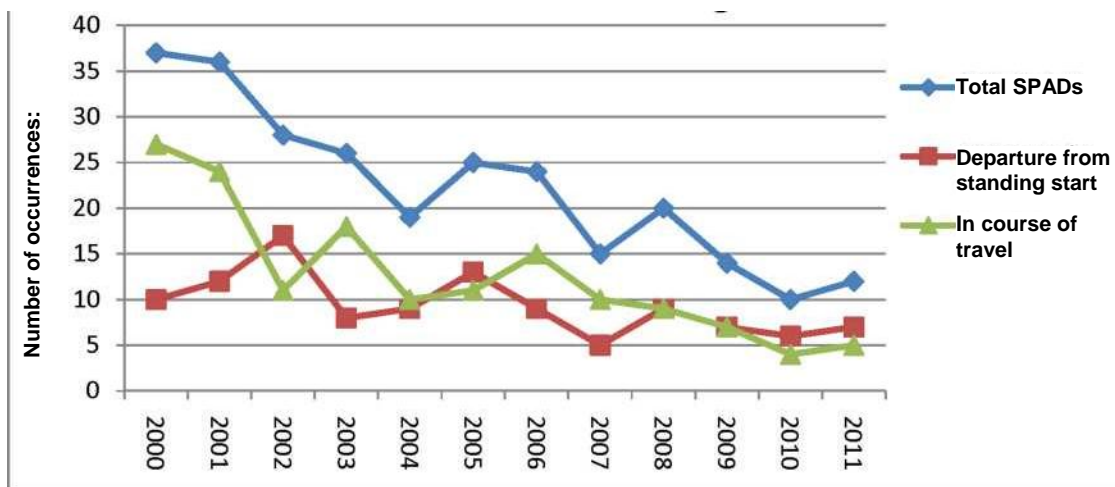
Table D.2.6 Trend of outcomes of accidents over the period 2008-																						
	2008											2009										
	Passengers			STAFF			Others		Total			Passengers			STAFF			Others		Total		
	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities
Train collisions	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	1	0	1	0	0	1	0
Train derailments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	13	43	30
Level-crossing accidents	0	0	0	0	0	0	3	5	8	3	5	8	0	0	0	0	0	0	5	0	5	5
Accidents to persons caused by rolling stock in motion	4	5	9	5	4	9	47	18	65	56	27	83	5	10	15	4	3	7	36	16	52	45
Fires on rolling stock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	4
TOTAL	4	5	9	5	4	9	51	23	74	60	32	92	5	10	15	5	7	12	71	29	100	61

	2010											2011										
	Passengers			STAFF			Other persons		Total			Passengers			STAFF			Other persons		Total		
	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities
Train collisions	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
Train derailments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Level-crossing accidents	0	0	0	0	1	1	11	3	14	11	4	15	0	2	2	0	0	0	15	1	16	15
Accidents to persons caused by rolling stock in motion	7	6	13	5	1	6	48	18	66	60	25	85	0	2	2	1	0	1	49	29	78	50
Fires on rolling stock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0
TOTAL	7	6	13	5	5	10	59	21	80	71	32	103	0	4	4	1	0	1	64	30	94	65

With regard to SPADs (signals passed at danger by trains) the following graph shows the instances that occurred over the period 2000-2011.

**Trend in the number of SPADs (signals passed at danger by trains)**

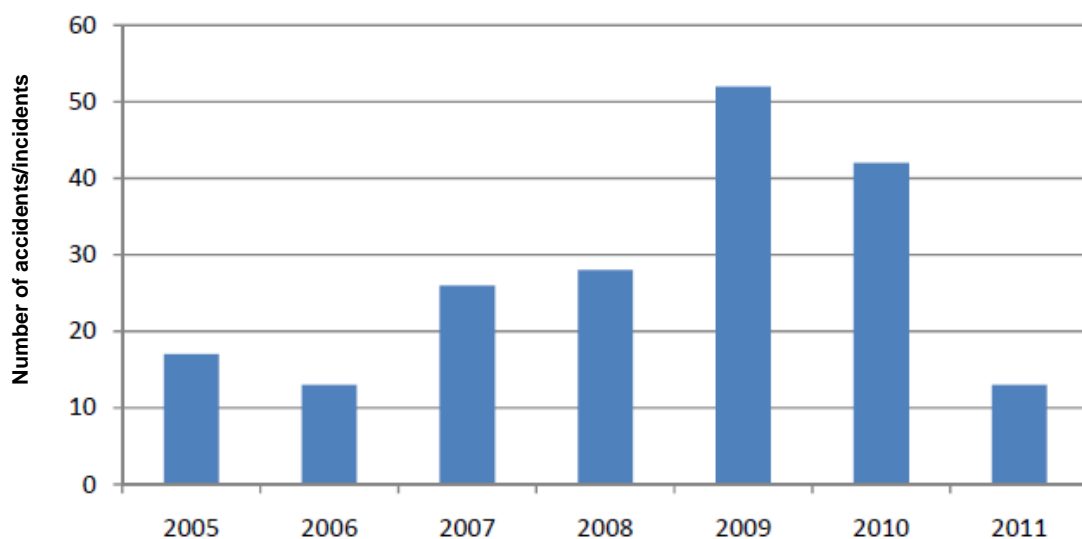


An analysis of the graph reveals that there was an increase in occurrences in 2011 compared with the previous year. This value is in line with a well-established trend in the reduction of occurrences during the period in question. During 2011, there were again no major accidents resulting from improper passing of a stop signal by a train.

The SPADs have been divided into two categories, namely, those occurring on 'departure from standing start' and 'in course of travel'. The SPADs on 'departure from standing start' are chiefly a function of the interrelation between train drivers and accompanying train crew. SPADs 'in course of travel', on the other hand, occur on arrival at or passing through stations, and, on the basis of the outcomes of such incidents occurring during the period under review, represented the greater cause for concern before the installation of the train movement protection systems.



**Figure D.2.7 Trend in the number of accidents and incidents involving the transport of hazardous goods associated with loading problems or container structural defects.**



The monitoring of non-compliances which affect the transport of hazardous goods, and in particular the spillage, leakage or release of hazardous goods, continued during 2011. This relates mainly to small releases of substances associated with loading problems or container structural defects. Figure D.2.7 shows that 2011 equals the minimum value recorded in 2006. The value shows the effectiveness of the measures adopted.

### **D.3 Results of the recommendations of the Investigating Body**

The provisions adopted by the Agency on the basis of the elements collected after the various incidents are in line with the recommendations drawn up by the Italian National Investigating Body. See point D.1 for a summary of the main measures adopted.

## **PART E – IMPORTANT CHANGES IN LEGISLATION AND REGULATIONS**

The main changes made to the reference framework for the safety of train movements and of rail operations in 2011 are set out in the table in Annex D.

This table indicates the following, for each standard:

- the subject-matter,
- the title,
- the date of entry into force,
- whether it is new or updated legislation,
- a brief description.

The entire regulatory framework is available on [www.ansf.it](http://www.ansf.it) in the section 'Rules on safety and interoperability' and on [www.rfi.it](http://www.rfi.it) in the section 'Regulatory framework'.

Note the following with regard to national standards:

- Legislative Decree No 43 of 24 March 2011 on 'Implementation of Directive 2008/110/EC which amends Directive 2004/49/EC on the safety of Community railways.' Published in Official Gazette No 87 of 15 April 2011.
- Legislative Decree No 61 of 11 April 2011 regarding 'Implementation of Directive 2008/114/EC on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection'. Published in Official Gazette No 102 of 4 May 2011.
- Law No 214 of 22 December 2011 on the 'Conversion into law, with amendments, of Decree Law No 201 of 6 December 2011 with urgent provisions for growth, equity and consolidation of public finances' (by the Transport Regulation Authority) published in Official Gazette no 300 of 27 December 2011, Ordinary Supplement.

The other main decrees relating to railway safety issued in 2011 are listed below:

- [Ministerial Decree of 3 January 2011](#) on the 'Authorisation for the national transport of tanks for carrying Class 2 hazardous goods under the RID and harmonization of the Decrees of 12 September 1925 and 22 July 1930, with the Annex II «Rail Transport» of Legislative Decree No 35 of

27 January 2010, for implementation of Directive 2008/68/EC on the inland transport of hazardous goods' published in Official Gazette No 86 of 14 April 2011.

- [Ministerial Decree No 19 of 24 January 2011](#), on the 'Regulation on the application within the railway transport system of Decree No 388 of 15 July 2003, pursuant to Article 45(3) of Legislative Decree No 2011 of 9 April 2008' published in Official Gazette No 58 of 11 March 2011.
- [Ministerial Decree of 2 February 2011](#) on the 'Identification of the requirements for issue of the national passenger licence for the performance of rail passenger services with the origin and destination in Italy.' Published in Official Gazette No 80 of 7 April 2011.
- Ministerial Decree of 18 March 2011 on the 'Determination of the criteria and methods for the diffusion of automated external defibrillators pursuant to Article 2(46) of Law No 191/2009 in locations where there is a high flow of persons or activities at risk: large or small airports, railway stations or sea ports, industrial structures' published in Official Gazette No 129 of 6 June 2011.
- Ministerial Decree of 2 July 2011 on the 'Interoperability of the Community rail system implementing Directive 2011/18/EC, which amends Annexes II, V and VI of Directive 2008/57/EC of the European Parliament and of the Council.' Published in Official Gazette No 211 of 10 September 2011.
- Accreditation of the experts for performance of tests on the tanks of the tank wagons, pursuant to paragraph 6.8.2.4.6 of the regulation on the carriage of hazardous goods by rail (RID). Published in Official Gazette No 91 of 20 April 2011.
- Presidential Decree No 1 of 1 August 2011 on the 'Regulation on the simplification of the procedures regarding the prevention of accidents, pursuant to Article 49(4-quater) of Law Decree No 78 of 31 May 2010, converted, with amendments, from Law No 122 of 30 July 2010.' Published in Official Gazette No 221 of 22 September 2011.
- Presidential Decree No 22 of 1 November 2011 on the 'Regulation governing the recruitment of personnel by the National Railway Safety Agency, pursuant to Article 4(6)(b) and (c) of Legislative Decree No 162 of 10 August 2007.' Published in the Official Gazette No 15 of 19 January 2012.
- Ministerial Decree of 21 November 2011 on the 'Recognition of ISARail S.p.A. of Naples as a notified body, authorised to assess the compliance or suitability for use of the interoperability components pursuant to Annex IV, as well as the EC verification procedure pursuant to Annex VI

of Legislative Decree 191/2010 with reference to the subsystems pursuant to Annex II of the same Decree. Published in the Official Gazette No 294 of 19 December 2011.

- Ministerial Decree of 1 November 2011 on the 'Recognition of BUREAU VERITAS SCIRO S.p.A. of Milan as a notified body with No 1782, authorised to assess the compliance or suitability for use of the interoperability components pursuant to Annex IV, as well as the EC verification procedure pursuant to Annex VI of Legislative Decree 191/2010 with reference to the subsystems pursuant to Annex II of the same Decree. Published in the Official Gazette No 294 of 19 December 2011.

With regard to the Authority's regulatory activities, the reorganisation continued, which had started in 2009, of the area and division of the functions of railway operators pursuant to Article 6(2)(a) of Legislative Decree 162/2007, with the aim of drafting a Consolidated Version of the railway operating regulations, including the fundamental principles to be defined by the Agency. As part of the activities, the texts regarding regulation of rail traffic and attribution of responsibilities amongst the railway operators, which were also acquired during specific bilateral meetings, have been drafted and sent to the interested parties (RFI, Railway Undertakings, sector associations and trade union organisations) for an opinion.

In the course of 2011 the following other regulatory activities were performed:

- Issuance of the following decrees amending technical regulations and safety standards in force, after drawing up appropriate draft decrees sent to the operators for an opinion:
  - No 2 /011 of 23 February 2011 on the update of Decree No 1/2009 of 6 April 2009 and regarding the elimination from Annex B of the regulatory circulars which are already implemented in the regulatory texts and of those relative to superseded organisational and technical contexts.
  - [No 3/2011 of 2 March 2011](#) with amendments to the Regulation on Signals and regarding the use of 'Swiss' type portable headlights for signalling the tail of trains;

- No 4/2011 of 28 March 2011 which integrates and updates the procedures for qualification of the Head of the Safety Management System under Agency Decree No Decree 1/2009 of 6 April 2009;
- [No 8/2011 of 15 September 2011](#) concerning the issue of licences for drivers driving locomotives and trains on the Community rail system;
- Issue of Directive [No 1/dir/2011](#) of 27 June 2011 relative to the trains approved for movement on lines operated by RFI equipped with TMCS and TDSS ;
- Conditions for access to the stretches of line between the State border and the border station between the networks of Railway Undertakings which do not already have access in compliance with the current agreements and conventions.
- [Issue, with ANSF Memo 03053/11 of 13 May 2011](#), of the Guidelines for application of Regulation (EC) No 352/2009 of the Commission of 24 April 2009;
- Issue, with ANSF Memo 03556/11 of 1 June 2011, of the Guidelines for drawing up the annual safety report;
- Issue of measures, recommendations and instructions to the RFI Infrastructure Manager and the Railway Undertakings regarding in particular:
  - the train movement protection systems on the conventional network (not high speed) operated by RFI;
  - [use of on-board subsystem of the train movement protection systems.](#)
  - the running of trains on lines operated by RFI with TMCS and TDSS following issue of Directive 1/dir/2011 mentioned above;
  - the amendments to the regulatory texts while awaiting the process for reorganisation of the service regulations;

- the process for issue of the safety certificate;
- [the training of personnel with safety-related duties and the adoption of training programmes by Railway Undertakings and the Infrastructure Manager;](#)
- the shunting movements of work equipment;
- or the traceability of the information regarding trains carrying hazardous goods;

For details of the regulatory measures issued by the Agency in 2011 reference should be made to Annex D.

## **PART F - DEVELOPMENT OF SAFETY CERTIFICATION AND SAFETY AUTHORISATION**

### ***F.1 National legislation – Commencement dates – Availability***

A total of 12 Railway Undertakings have been certified up to 31 December 2011 pursuant to Article 10 of Directive 2004/49/EC, as transposed by Legislative Decree No 162 of 10 August 2007; of these, 2 were new Railway Undertakings.

However, at 31 December 2011, there are 21 railway undertakings who have presented a formal request for updating in accordance with the above-mentioned Directive, in compliance with the requirements of Regulation (EC) No 653/2007, which perform railway services since they hold a safety certificate issued under Directive 2001/14/EC.

The analyses carried out by the Italian National Safety Authority on the applications presented and on the attached documentation have been performed both to check the completeness of the documentation presented in accordance with the requirements of the guidelines issued by this Agency on 23 March 2010 and to assess whether the processes described in the various Safety Management Systems implement the criteria contained in Regulation (EC) No 1158/2010.

The National Railway Safety Agency issued Decree No 4/2011 on 28 March 2011 which includes as an annex the requirements for qualification of those in charge of the SMS (safety management system). A series of activities were performed in 2011 by personnel of the Agency for the training of the persons in charge of the SMS of the Railway Undertakings to allow them to acquire the necessary skills in order to obtain the qualification.

During 2011 this Agency was also engaged in other training/information activities aimed at the persons in charge of the management structures of the Railway Undertakings and, in some cases, with Associations which represent them, in order to promote a 'safety culture' in terms of definition and implementation of the management and operational procedures for the Safety Management Systems aimed above all at the correct adoption of the measures for identifying, assessing, managing and controlling the risks resulting from the railway activities of the Undertakings.

*A Framework Agreement for study and research activities regarding railway safety was concluded in 2011 between the Italian National Safety Authority and the Waterways, Transport and Roads Department of Rome University 'La Sapienza' University, Rome, which considered the applicability of the guidelines issued by the Agency in 2010 to be correct and the documentary assessment procedures adopted to establish compliance with the requirements for obtaining railway network safety certificates, pursuant to Regulation (EC) No 1158/2010, to be suitable.*

With regard to the Safety Authorisation to be issued to the Infrastructure Managers, the manager of the National Infrastructure (Rete Ferroviaria Italiana SpA) presented the request to obtain the safety authorisation on 26 October 2011.

## **F.2 Quantitative and qualitative data on the Italian rail system**

33 Railway Undertakings held a safety certificate at 31 December 2011.

Of these, 12 held a safety certificate issued pursuant to Directive 2004/49/EC.

The position regarding the issue of safety certificates up to 31 December 2011 is set out below:

- 12 safety certificates part A, of which 2 to new railway undertakings (Oceanogate and SVI);
- 12 safety certificates part B, of which 2 to new railway undertakings (Oceanogate and SVI);
- 2 updates to safety certificates part A;
- 4 updates to existing safety certificates part B;
- 1 revocation of safety certificates part A;
- 1 revocation of safety certificates part B;

The 12 undertakings holding safety certificate part A and part B perform the following services:

- 7 perform exclusively goods services including transport of hazardous goods;
- 3 perform exclusively passenger services with the exclusion of HS/HC lines;
- 1 performs exclusively passenger services including HS/HC lines;
- 1 performs goods services including transport of hazardous goods and passenger services including HS/HC lines.

An overview of the Railway Undertakings' position regarding safety certification for 2011 is set out in Annex E:

## **F.3 Procedural aspects**

The certification activities performed during 2011 highlighted, firstly, that the need to have within a Railway Undertaking an organisational structure independent of the production processes and dedicated to safety issues is still seen as an imposed restriction which results in an increase in costs for the Undertaking.



Secondly, with the exception of the Railway Undertaking Trenitalia which has a developed organisational structure that is technically structured, the technical structures of the other Railway Undertakings are still not fully structured to deal with the tasks which result from the application of the new EU requirements.

It will therefore be absolutely essential to strengthen these structures. Otherwise, the Railway Undertakings will run into serious problems since, as they will be unable to manage amendments to their system, they will be unable to adapt their organisation to the needs of the service and, therefore, of the market, that is, as the amendments will be managed incorrectly, the safety certificate will be withdrawn.

To allow the development of the liberalisation processes to take place whilst safeguarding the safety levels, it is necessary for the newly arrived Railway Undertakings (especially the small-sized ones) to immediately activate a process for strengthening their technical structures, if necessary accompanying this process with the activation of interactions or, even, mergers.

There must be awareness that this process is an essential requirement in order to adequately respond to market needs and, therefore, it is an opportunity rather than a constraint.

Naturally, the upgrading of the Safety Management System in line with the requirements implies complex organisational modifications especially for those bodies, such as, for example Trenitalia, which extend throughout the country and, therefore, require a considerable period of time (for example, the upgrading for Trenitalia started at the end of 2008 and it is currently under final completion).

The points made regarding the safety certificate of Trenitalia also apply to the process for issue of the safety authorisation to the national manager Rete Ferroviaria Italiana.

## **PART G – SUPERVISION OF THE INFRASTRUCTURE MANAGER AND THE RAILWAY UNDERTAKINGS**

### **G.1 Description of the activities for supervision of the Railway**

#### ***Undertakings and the Infrastructure Manager.***

The Agency has performed its activities of supervising the Railway Undertakings and the national Infrastructure Manager for the safety with the aim of promptly acquiring all information necessary to identify the cause of the occurrence and thus adopt regulatory and technical measures to help avert the repetition of such events;

- performance of audits of the RFI Safety Management System and the Railway Undertakings, both of documentation (assessment of compliance with compulsory requirements) and in the field (assessment of compliance of management processes implemented);
- inspection activities on the operability of the Railway Undertakings and RFI (assessment of compliance of operating processes implemented);
- evaluation and analysis of annual reports sent by the Railway Undertakings;
- analysis of the results of all the Authority's activities with respect to RFI and the Railway Undertakings.

#### **G.1.1 Audits, inspection activities and check-lists**

During 2011 procedure SIC.P.01 'Audit activities of the inspection and controls sector' of 20 January 2011 was issued to govern the auditing activities of the Agency and procedure SIC.P.02 'Inspection monitoring of the operational processes of the Railway Undertakings' of 1 June 2011 was issued to formalise the organisational and procedural aspects for inspection monitoring of the

operational processes of the Railway Undertakings regarding compliance of the rolling stock and technical inspection of the vehicles.

Both the procedures have also regulated the use of check lists, of a standard type in the case of inspection monitoring, to be prepared each time in the case of audits and follow-ups.

The procedures for performing the checks for the inspections of Infrastructure Managers were defined in a more accurate manner during 2011.

The audits and the inspection monitoring activities of a routine type were the subject of yearly planning.

The above-mentioned activities were performed by personnel within the Agency; only for certain specific activities (for example, the safety of tunnels) was use made of external technical personnel, working alongside the Authority's inspectors.

The audits involved approximately 10% of the Authority's staff, working full time and with the support of other specialist personnel employed by the Agency.

The inspections involved approximately 20% of the Authority's staff working full time; for certain specific activities, skilled personnel employed by the Agency normally dedicated to other activities were also involved on an occasional basis.

During 2011 the Agency issued safety certificates Part A and Part B (see point F for details); when issuing these certificates the Railway Undertakings in question were notified of the areas for which it was considered necessary to perform the checks by means of field audits. No safety authorisations were issued to Infrastructure Managers during 2011; in 2011 the Agency was only responsible for the national Infrastructure Manager RFI, which undertook the upgrading of its Safety Management System in accordance with Directive 2004/49/EC, as implemented by Legislative Decree No 162/2007; however, both the inspections and the audits on the safety processes implemented by RFI continued during 2011.

### **G.1.2 Supervision elements and sensitive points to be performed**

The audits were aimed at topics for further examination derived from the results of the audits performed the previous year and by an internal analysis carried out on the basis of accident data, the results of checks performed by the Agency and taking into account the main new features of the regulatory framework.

The topics for further examination are different for the Infrastructure Manager and for the Railway Undertakings.

For the Infrastructure Manager they mainly concerned:

- management of track maintenance (national and regional diagnostics, geometry of switch points, superstructure inspections, long welded rails);
- management of maintenance of signalling equipment;
- safety management in tunnels;
- management of the running and shunting.

For the Railway Undertakings these have mainly concerned:

- management of the interfaces with suppliers and third parties;
- managing driving processes, crewing trains, train formation, inspection, maintenance;
- other areas of the Safety Management System identified on the basis of specific monitoring of the safety performance.

On the other hand, the constant aim of the inspection activities over time is ensuring compliance with the current regulations for the railway operating processes and, in particular, checking the rolling stock for the Railway Undertakings and maintenance and management processes for train movement and shunting for the Infrastructure Manager.

In addition, attention was focussed on the transport of hazardous goods and the problems of the doors with regard to the Railway Undertakings, and the operating status of the points and the tunnels with regard to the Infrastructure Manager.

Elements on 114 events were collected directly from the Agency during 2011. Almost 50% of the checks concerned maintenance problems on the infrastructure side or on the rolling stock side. The other two main types of problems involved in direct checks are the SPADs and the discharge of hazardous materials.

## **G.2 Annual safety reports by the Infrastructure Manager and the Railway Undertakings**

Most of the operators submitted their reports by the required deadline (30 June) while in some cases the information arrived late, as may be seen from the following table.

Railway undertakings	Railway operators who submitted their reports by 30 June	Railway operators who submitted their reports after 30 June	Railway operators who have not submitted their reports
34	19	15	0

The report by RFI, the national Infrastructure Manager, was received on 26/09. The Agency was unable to check the quality of the data contained therein (for example, the make-up of the level crossings, the precursors connected with the maintenance of the infrastructure, etc.) and the data is not therefore shown in the report and in the annexes.

### **Data on the procedures for achieving internal safety targets and results obtained from the safety plans**

Analysis of the information received has revealed that the projects developed by the organisations have substantially adhered to the critical areas defined for the year 2011 by the Agency. Only in a few cases have the organisations submitting the safety plans defined additional critical areas for themselves.

The indicators and the measuring of the critical areas are missing in some cases and if they are present they aim mainly at checking the completion of the actions inserted in the plan rather than checking their effectiveness.

Such cases resulted in less precise definition of measurable improvement targets and consequent difficulty in verifying the extent to which those targets have been achieved, as well as in evaluating the effectiveness of the actions and the efficiency of the resources deployed.

### **National safety indicators and Common Safety Indicators (CSI)**

The safety indicators introduced by Instruction No 13/2001 of the Infrastructure Manager were adopted as the national safety indicators required under Article 13(4)(b) of Legislative Decree 162/07. They constitute the minimum set of indicators for use within the safety management systems.

With the Guidelines for drafting the annual safety Report, the Infrastructure Manager and the Railway Undertakings, by producing these indicators, were requested to provide an overview of safety performance trends, enabling the result achieved in the year in question to be assessed by comparison against parallel previous periods or, alternatively, against a predetermined reference value.

All in all, it can be said that the national safety indicators have not thrown up any problems beyond those identified from the other instruments for supervising the activities of the Railway Undertakings and the Infrastructure Manager.

Some imprecisions were noted in the Railway Undertakings' counting of certain precursors such as, for example, the number of axles and wheels damaged. This fact must, however, be considered in a positive manner, since it demonstrates the efforts made by the Railway Undertakings to provide realistic data and allows analyses to be made for an ever greater refinement of the data quality.

Following an audit of the production data notified by the Railway Undertakings for 2011 it emerged that many Railway Undertakings had not notified the exact

value of the train-kilometres. The data provided by RFI has also been used for this year which, in this respect, are more reliable.

Whilst the indicators provided by the majority of the Railway Operators have a certain degree of inconsistency and incompleteness, they show the need for an activity to mitigate the problems related to the behaviour of the driving crews and trains crews and the maintenance status of the railway vehicles.

The late presentation of the annual Report by the national Infrastructure Manager RFI has prevented complete verification of the exhaustive nature and make-up of the indicators contained therein.

### **Results of internal safety audits**

As required by the procedures of the Safety Management System, the Infrastructure Manager and the Railway Undertakings carried out internal audits on operational and organisational aspects affecting the safety of operations.

In some cases, the accounts given by the Reports were highly summarised, providing few details of the non-compliances identified. The number of non-compliances appeared consistently small, sometimes limited to aspects that were not matters of traffic safety.

In addition, complete coverage of all the safety processes using the internal auditing activities does not emerge in various cases. It is therefore a process which the rail operators should engage in in a more effective and forthright manner.

### **Observations on deficiencies in and malfunctioning of railway operations and infrastructure management**

In the majority of cases, the means providing most information is the internal audit: only in a limited number of cases were results obtained from monitoring safety indicators and from the use of other possible control tools.

In several cases there has been no reporting and only in a few cases have interface problems emerged between railway operators, in particular with the

Infrastructure Manager, and suppliers of rolling stock and maintenance. They are specific, readily identifiable problems.

### **Data and information requested by the Agency**

The Railway Undertakings have not satisfied all the requests for information made by the Agency.

## **G.3 Inspections carried out in 2011**

The inspection activities carried out on the Infrastructure Manager have focused mainly on the following aspects:

- functionality of switch points, both for the superstructure aspects (checking the characteristic geometrical levels) and for the aspects of the safety system which operate the switch points;
- railway tunnels (risk analyses, general emergency plan, paths, emergency lighting, public announcement and emergency telephone system, emergency signalling).

Forty (40) systems of the Infrastructure Manager were inspected with regard to the functionality of switch points, distributed throughout the entire country.

With regard to the superstructure aspects, a total number of 9 switch points were checked and 1997 levels were measured, finding non-compliant levels in 8.4% of the cases. With regard to the aspects linked to the safety systems, a total number of 208 switch points were checked and 441 switch blades were checked, finding non-compliant measurements in 10.9% of the cases.

The majority of elements which were found non-compliant concerned:

- regarding functionality of the switch points, there was, as well as the levels which were found unacceptable, a lack of or incorrect recording on the information systems and irregularities in the cyclic nature of the checks;
- regarding execution of the maintenance, non-compliances were found in the application of the company procedures and the technical regulations;



- regarding maintenance management, there was found to be a lack of correlation between performance controls and maintenance results, a misalignment between the maintenance action with respect to the requirements and an incomplete survey of the systems and the equipment;
- regarding control of the processes, there were found to be inconsistencies in the management and execution of the maintenance both at the level of a same territorial management and between various territorial managements.

8 tunnels were inspected; there was found to be a general lack of analysis of the risks and of the General Emergency Plans, incomplete access along the footpaths inside the tunnels and inefficient lighting systems.

The inspection of the Railway Undertakings concerned the safety activities of the rolling stock sector, including compliance of the control activities and of activities associated with hazardous goods. The inspection activities concerned 15 Railway Undertakings.

Attention has been paid in particular to the safety devices for the towed rolling stock and for the towing vehicles, although data has also been collected regarding the operativity of the control personnel and the management of the personnel and the work provisions.

The controls have shown that there are approximately 21% of non-compliances, in particular an increase in non-compliances in the towing vehicle safety equipment, an increase in non-compliances in the safety and auxiliary equipment for the carriages (mostly due to faults to the anti-sliding device), confirmation of the high percentage of non-compliances relative to faults to the doors for the boarding and alighting of passengers. In addition, controls have been performed on 276 units for carrying hazardous goods, at 13 locations for the departure/arrival of the trains carrying hazardous goods.

The non-compliances which have been detected, which remain below 2% of the checks, are substantially due to a lack of controls on parts of the vehicle substructure and entries of revisions or hazard coding tables which are missing or illegible.

The findings emerging during inspection activities are immediately communicated to the relevant operator and, particularly in the case of findings concerning rolling stock, may lead to the vehicle/train being taken out of service until the non-compliance can be rectified.

Lastly, with regard to the rolling stock, certain specific inspections were performed, including random checks on the excess weights of wagons, maintenance condition of the shock absorbers and the fault situation of anti-sliding devices.

#### **G.4 Audits conducted in 2011**

Field audits were carried out in accordance with the '2011 audit plan' policy paper.

A total of 88 activities were performed in 2011, of the 88 planned, between audits and follow ups, of which 24 at Infrastructure Managers and 64 at Railway Undertakings.

The summary of the audits is shown in the following table.

Audit	Safety certificates part A or B issued	Railway undertakings	Infrastructure manager	Documentary audits
Planned	13		6	35
Performed	3	15	14	35

The following were performed on the Infrastructure Manager:

- 14 audits on the operational processes of the territorial facilities of the Infrastructure Manager;
- 10 follow-ups on audits carried out previously, of which 2 on systems and 8 on the operational processes of the territorial facilities of the Infrastructure Manager;

The audits on the Railway Undertakings were mainly documentary assessments following a request to issue or update the safety certificate; activities were then

performed on the Railway Undertakings which had not undergone a field check the previous year. The following activities were performed:

- 35 documentary assessments for the issue / updating of safety certificates part A and part B;
- 16 audits on the operational and management processes of the Safety Management System;
- 2 system audits aimed at the issue / updating of the safety certificate; activities which in one case have lead to the failure to issue the requested certificate;
- 11 follow-ups of audits carried out previously.

Findings after follow-up were not always positive. In those instances it became necessary for those in charge of the organisations audited to take on additional duties and take further action to resolve ongoing difficulties. In two cases it was necessary to re-plan further field checks for the next year.

Critical issues concerning the Infrastructure Manager relate to the following:

- management and execution of the maintenance, with particular attention to monitoring of the status of the infrastructure, including the diagnostic aspects;
- management of the running;
- planning and execution of the shunting service;
- management of the relations with Railway Undertakings and with other operators;
- processes for management and control of safety and their interfacing with the running and maintenance processes;
- activations of systems for service;
- operational planning of the works in service;
- training and keeping skills up to date;
- management of the hydrogeological risk;
- safety management at the physical and operational boundaries of the infrastructure.

The main critical issues for the Railway Undertakings concerned the following processes:

- management of the amendments and application of Regulation (EC) No 352/2009;
- management of interface risks and risks induced by external activities;
- management of the compliance with the regulations and issue of the service regulations;
- management of the maintenance;
- training staff and checking skills;
- transport of hazardous goods.

From an analysis of the Safety Management System within the process for issue or updating of the safety certificates into the new certificates part A and part B, the following points have emerged as the most critical:

- procedures which define personnel and operational phases for control of the modifications, for implementation and application of Regulation 352/2009/EC;
- detailed and documented definition of the measures for mitigation of the risk and the methods for monitoring the relative effectiveness over time;
- identification and management of interface risks and risks induced by activities external to the railway system;
- assessment of the level of performance of the personnel who have a role in safety management compared with the assigned objectives;
- management of the safety activities performed by outside parties with definition of the responsibilities, analysis of the risks, monitoring of the standards and monitoring of the performance of the suppliers.

### **G.5 Follow-ups by the Agency of aspects identified during supervision activities**

An analysis of aspects emerging during supervision activities carried out on operators during 2011 led to the identification of the following critical areas:

- implementation of the measures to obtain safety certificates and safety authorisation;

- continuous diffusion at all the company levels of the railway safety culture, from the definition of the policy to the execution of the service, in compliance with the current regulatory framework and in light of the experience gained and the technologies available;
- organisation and control in safety of the production processes and systematic control of the related risks in the relative part of the system to the interfaces with the other operators, the maintenance providers and the suppliers of services in general and generated by the external activities;
- cooperation and communication between the railway operators on safety problems, independently of the relationships of a commercial nature;
- identification and analysis of the data significant for the safety and their monitoring to determine the trends with respect to the achievement of the pre-set objectives;
- management of the emergencies and interaction with the competent safety authorities for the safeguarding of passengers.

The Railway Undertakings and the Infrastructure Manager were asked to draw up their own safety plans, including implementation of actions and projects to address these critical areas and also identify further specific goals for their activities and critical areas requiring corrective measures through risk analysis.

In one case, the requested safety certificate was not issued following the audit activity.

In the safety certificates part A and part B which were issued, the documentary assessments resulted in the Railway Undertakings being requested to adopt corrective measures on the Safety Management System processes and procedures.

**G.6 Denunciations by the Infrastructure Manager regarding the Railway Undertakings concerning the conditions of their safety certificate part A and part B**

p.m.

**G.7 Denunciations by the Railway Undertakings regarding the Infrastructure Manager in relation to the conditions of the safety authorisation**

p.m.

**PART H – REPORT ON THE APPLICATION OF COMMON SAFETY METHODS TO THE IDENTIFICATION AND ASSESSMENT OF RISK**

With the review of the 'Guidelines for drawing up an annual safety Report' issued in 2010, the Agency requested all rail operators to provide, as part of the Annual Safety Report, a report on the application of the CSMs (Common Safety Methods) in their own particular part of the system.

Aspects for the application of Regulation (EC) No 352/2009 in the course of 2011 were only supplied by the Railway Undertakings Go Concept and ISC and by the suppliers Bombardier, Alstom; nothing was received from the Infrastructure Manager RFI.

The Agency will attempt to raise the awareness of the Railway Undertakings and the Infrastructure Manager so that they prepare a section in the respective annual reports which indicates how the common safety methods are applied, in accordance with the ERA template.

RFI was authorised in 2011 to put into operation the following general applications, and they resulted in the application of the common safety method by the above-mentioned operator:

- Alstom SmartLock300Z general application (Bologna Bivi di Cintura)

- Static flasher general product (Marini Impianti) for signal and level crossings
- Thales - AZLM axle counter block system

In the above-mentioned processes, RFI developed a risk management process in compliance with the requirements of Regulation No 352/2009, producing a modification acceptance dossier including the assessment report prepared by the appointed VIS.

During 2011, RFI sent, as part of the process for obtaining the safety authorisation, certain internal procedures for management of the risks and the modifications, in accordance with Regulation (EC) No 352/2009. These procedures are still under assessment.

With regard to the Alstom and Bombardier suppliers, the list of the processes which have resulted in the application of the common safety method is given below:

**Società Alstom Ferroviaria S.p.A.:**

Vehicle	Date	Document	Particulars
CSA - ETR 245	26.08.2011	CSA-AF/ANSF 186	DCER apparatus - Reporting of updating of operating system and DSTM software
CSA - ETR 2AS	13.12.2011	CSA-AF/ANSF 194	TCMS software configuration update
CSA - ETR 245	12.03.2011	CSA-AF/ANSF 197	Modification Release SWTCU (3C>3D)

**Bombardier company:**

Model Ref.	Vehicle	Brief description of modification	Proposed classification	Date proposed to OT	OT accepts	Date of revision to OT	Classification proposed to OT
OT-0001-2011	E464	Telediagnostic implementation	B	26/09/2011	Yes	02/11/2011	B
OT-0002-2011	E405	Telediagnostic implementation	B	26/09/2011	Yes	02/11/2011	B
OT-0003-2011	E4S4	Installation of Baseline 702.0 software	B	26/09/2011	Yes	02/11/2011	B
OT-0004-2011	ETR500PLT	Parking	B	26/09/2011	Yes	02/11/2011	B
OT-0005-2011	E464	Ferrites on CSA	B	26/09/2011	Yes	21/11/2011	B
OT-0006-2011	E464	Installation of Baseline 68.0 software	B, C	26/09/2011	Yes	09/01/2012	B
OT-0007-2011	E464	Reduction gear	B	02/12/2011	Yes	02/12/2011	B

All the above-mentioned processes, analysed by the suppliers' technical bodies with reference to the principles of Regulation (EC) No 352/2009 have been classified as modifications non-significant for the railway system. This type

of classification is traced and identified by specific numbering according to suitable company specifications.

Railway undertakings **Go Concept/Arenaways and ISC:**

Both the Railway Undertakings declare that the analysis of the modifications to the railway system carried out during 2011 has resulted in the classification of the modifications as non-significant.

The analysis process has been performed according to suitable procedures for the safety design and for the assessment of the risks and the identification of mitigation and control measures, forming part of the SMS of the Railway Undertakings.

## **PART I - Information on the ECMs (from 2013)**

p.m.

## **PART J – CONCLUSIONS, PRIORITIES AND SAFETY RECOMMENDATIONS**

From the analysis of the trend of railway safety in 2011 on the rail infrastructure under the jurisdiction of the Italian National Safety Authority, the strong points of the Italian rail system may be identified as a substantial alignment of the numbers of accidents with those of the main European States and, especially, with regard to the availability on the entire network operated by RFI of the safety technologies for the train movement protection systems, the use of which finally allows the benefits to be reaped of the considerable state funding which has been invested in these technologies over recent years.



The following points have emerged with regard to the critical elements:

- ★ the increased trend in the number of 'level-crossing accidents' has been confirmed in 2011;
- ★ the number of 'accidents to persons caused by rolling stock in motion' compared with the total number of 'serious accidents' is still high;
- ★ there remains, even though there is a reduction, the widespread critical issue of accidents linked to the malfunctioning of the doors for the boarding and alighting of passengers from trains, due also to maintenance shortcomings, in the same way that maintenance aspects are also the cause of many accidents, even of a minor nature, concerning the HS services;
- ★ with regard to the sector for the transport of hazardous goods, there has been, thanks to the measures introduced, the inspection activities and the interaction activated with the Ministry of Infrastructures and Transport and the Railway Police, an increase in the level of attention and control by the operators on the transport activities, as demonstrated also by a comparison with the previous years of the data relative to the loss of hazardous goods; it is still necessary to strengthen the controls in the depots, stoppage areas and the availability of sites suitable for repair works;
- ★ in 20 the Agency made a considerable effort to align the Safety Management Systems of the Railway Undertakings during the renewal of the safety certificates for upgrading to the criteria of the EU regulations which provide for a part A (valid at European level) and a national part B, also in view of the full implementation of Regulation (EC) No 352/2009. This process has still not been completed;
- ★ special attention should be paid to the Infrastructure Manager RFI, for which the Agency has performed the tasks relative to supervision starting from January 2010; a delicate and articulated process is currently in progress aimed at the issue of the safety authorisation, started with the Agency Directive No 1/201 and still in progress, with the simultaneous process for the organisational upgrading of the Infrastructure Manager.

In order to eliminate the above-mentioned critical issues, the Agency has also continued its involvement in the following areas of improvement in 2012:

- ★ implementation by the operators of the measures requested by the Agency as part of the processes for issue of the safety certificates and safety authorisation;
- ★ creation of a technical supervision for the small-sized Railway Undertakings which is sufficient to support the impact of the regulatory framework development at a European level;
- ★ strengthening of the maintenance processes, both for the infrastructure and the rolling stock, which require a greater control by the Infrastructure Manager and the Railway Undertakings, each for their own particular part of the system. This is also in relation to the new maintenance personnel recently introduced by the EU regulations and, with regard to the bodies concerning safety, to take into consideration the stresses to which these bodies are subjected;
- ★ a further strengthening of the supervision by the operators involved in the transport chain for hazardous goods, especially with regard to those processes which see them interface with each other (such as controls in the depots, stoppage areas and the availability of sites suitable for repair works). In this area, it is still necessary to resolve the problem of the adoption of standard and compulsory measures at a European level;
- ★ the use of technological safety systems as well as the completion of the programs in progress for the installation of the devices which are able to guarantee the controls on the rolling stock during service, such as dynamic weights, bushing temperature measuring systems and multi-purpose gantries;
- ★ improvement of the cooperation and communication between the railway operators on safety problems, independently of the relationships of a commercial nature;
- ★ in particular, with regard to the infrastructure, the aspects linked to the procedures for inspection and assessment of the condition of bridges, with reference also to the relative EU standards for checking whether the

procedures currently performed are suitable, that is, whether it is necessary to introduce improvements;

- ★ the implementation by the Infrastructure Manager of the requirements for the operation of maintenance works vehicles following the reorganisation carried out by the Agency;
- ★ checking the compliance of the systems for protection of road crossings with the planned requirements, on the basis also of the current movement conditions on the road side and on the rail side.

Important steps forward on the regulatory reorganisation process were taken in 2011, which is an essential process not only for aligning the national regulations to the principles of the EU directives, but, above all, to make clarity with respect to an existing regulatory framework which was stratified over time and which consequently lacks uniformity and has some inconsistencies.

The regulatory activities of the Agency over recent years have started a path which has led to the issue in 2012 of a framework measure containing all the railway safety principles. This allows the Railway Undertakings and the Infrastructure Manager to work within a clear framework and be able to exercise fully, within the perimeter of the principles fixed by the Agency, the powers attributed to them by the EU directives regarding the issue of operating requirements, according to procedures fixed by EU regulations and under the supervision of the Agency.

Lastly, it is important to note that it is necessary to complete the process of acquisition by the Agency of the responsibility for safety issues, on regional networks interconnected with the national network, which currently depends on the completion of the equipping of these infrastructures with train movement protection systems which allow for the standardisation of rules on operation and on the level of technology and safety between the regional networks and the national network managed by RFI.



Annex A: Information on the railway infrastructure

Annex A.1: Coverage of the national railway infrastructure  
Annex A.2: Information on the Infrastructure Manager and the Railway Undertakings

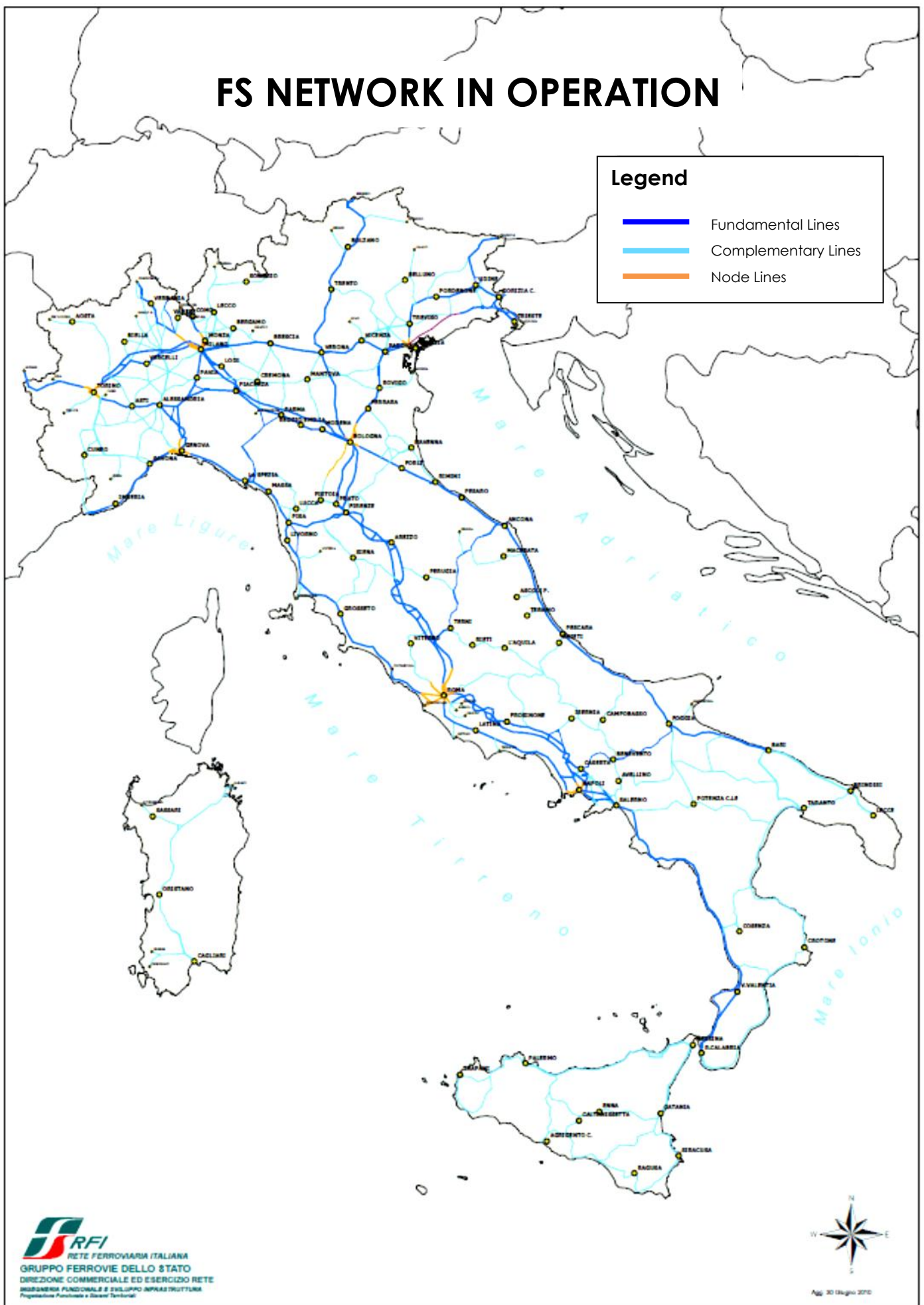


## Annex A.1: Coverage of the national railway infrastructure

# FS NETWORK IN OPERATION

## Legend

- Fundamental Lines
- Complementary Lines
- Node Lines





Annex A.2: Information on the Infrastructure Manager and the Railway Undertakings

Infrastructure manager														
Name	Address	Web site	Safety Authorisation	Date of commencement of commercial activities	Total network length (km)	Length of electrified lines/electrical voltage		Line lengths		Total length of high speed lines (km)	ATP (Automatic Train Protection) equipment		Number of level crossings	Number of signals
						Electrical voltage	km	Double-track	Single-track		Type	km		
RFI S.p.A.	Piazza della Croce Rossa, 1  00167 Rome	www.rfi.it	Concession instrument  DM 31.10.2000 n. 138-T	31/10/2000	16685	na	na	na	na	na	TMCS (*)	na	na	na
						na	na				TDSS (*)	na		
											ERTMS	na		



Railway Undertakings														
Name	Address	Web site	Safety Certificate 14/2001/EC (number and date)		Date of commen- cement of commercial activities	Type of service			Number of units registered (Locomotives, Railcars, Multiple units)	Number of wagons registered	Number of carriages registered	Number of personnel with safety- related duties	Passenger volume (train- kilometres)	Goods volume (train- kilometres)
						Passengers	Goods	RID						
GTT-Gruppo Torinese Trasporti S.p.A.	Corso F. Turati 19/6 10128 Turin (TO)	www.comune. torino.it/gtt	83/2006	05/06/2006	27/07/2001	✓			52	0	0	195	388592	0
SERPER - Servizi Ferroviari S.r.l.	Via F. Rolla, 22/R 16152 Genoa (GE)	www.serferonline. com	65/2010	29/07/2010	06/06/2003	✓	✓	✓ (no classes 1 and 7)	11	0	0	1246	51617,791	834460,06
PER-Ferrovie Emilia Romagna S.r.l.	Via S. Donato, 25 40127 Bologna (BO)	www.fer-online.it	74/2010	22/12/2010	01/01/2001	✓	✓	✓ no class 7	121	0	31	1000	2170969	579968
TFT-Trasporto Ferroviario Toscano S.p.A.	Via G. Monaco, 37 52100 Arezzo (AR)	www.trasportofer roviariotoscano.it	57/2010	01/06/2010	01/07/2004	✓	✓		11	0	0	110	0	2278

Railway Undertakings														
Name	Address	Web site	Safety Certificate 14/2001/EC (number and date)		Date of commen- cement of commercial activities	Type of service			Number of units registered (Locomotives, Railcars, Multiple units)	Number of wagons registered	Number of carriages registered	Number of personnel with safety- related duties	Passenger volume (train- kilometres)	Goods volume (train- kilometres)
						Passengers	Goods	RID						
NordCargo S.r.l.	Via Spadolini, 12 20026 Novate Milanese	www.nordc argo.it	34/2009	01/12/2009	30/07/2003		✓	✓ no class 7	34	0	0	670	0	2272203
Ferrovia Adriatico Sangritana S.p.A.	Via Dalmazia, 9 66034 Lanciano (CH)	www.sangritan a.it	64/2010	27/07/2010	04/02/2004	✓	✓		25	0	0	130	592523	276312
Sistemi Territoriali S.p.A.	P.zza G.zanellato, 5 - 35131 Padova	www.sistemiterr itorialispa.it	126/2008	06/06/2008	08/2003	✓	✓	✓ no classes 1 and 7	22	0	0	190	579656,85	196596,43
SBB Cargo Italia S.r.l.	Via Damiano Chiesa, 2  21013 Gallarate (VA)	www.sbbcargo. com	42/2009	29/12/2009	14/12/2003		✓	✓ no class 7	40	0	0	484	0	1758082

Railway Undertakings														
Name	Address	Web site	Safety Certificate 14/2001/EC (number and date)		Date of commen- cement of commercial activities	Type of service			Number of units registered (Locomotives, Railcars, Multiple units)	Number of wagons registered	Number of carriages registered	Number of personnel with safety- related duties	Passenger volume (train- kilometres)	Goods volume (train- kilometres)
						Passengers	Goods	RID						
Metrocampani a Nordest S.r.l.	Via Don Bosco (former goods depot)  80141 Naples (NA)	www.metrocam panianordest.it	45/2004	30/11/2004	2005	✓			24	0	0	102	379844	0
Umbria TPL and Mobilità SpA  Ex Ferrovia Centrale Umbra S.r.l.	Strada Santa Lucia, 4 06125 Perugia	www.umbriam obilità.it	120/2008	09/04/2008	December 2002	✓			53	0	0	126	944376	0
Rail One S.p.A.	Piazzale Marconi, 69 66100 Chieti	www.railon e.it	71/2010	20/12/2010	2nd six months 2006		✓		0	0	0	35	0	0
CAPTRAIN Italia Srl ex  SNCF Fret Italia S.r.l.	Via Toffetti 104  20139 Milan (MI)	www.captrain.it	60/2010	23/06/2010	08/02/2006		✓	✓ no class 7	33	0	0	230	0	606540

Railway Undertakings														
Name	Address	Web site	Safety Certificate 14/2001/EC (number and date)		Date of commen- cement of commercial activities	Type of service			Number of units registered (Locomotives, Railcars, Multiple units)	Number of wagons registered	Number of carriages registered	Number of personnel with safety- related duties	Passenger volume (train- kilometres)	Goods volume (train- kilometres)
						Passengers	Goods	RID						
SAD - Trasporto Locale S.p.A.	Corso Italia 13/N  39100 Bolzano (BZ)	www.sad.it	36/2009	10/12/2009	05/05/2005	✓			19	0	0	207	1115759	0
Ferrovie Udine Civiale S.r.l.	Via Peschiera, 30  33100 Udine (UD)	www.ferrovi eudineciviale.it	10/2008	30/10/2008	08/07/2008		✓		2	0	0	53	0	130448
Linea Ferroviaria S.p.A.	Via Girardengo, 60 15067 Novi Ligure (AL)	www.lineaferroviaria.it	76/2010	28/12/2010	01 /08/2007		✓	✓ no class 7	15	0	0	199	0	1495839
Ferrottramviaria S.p.A.	P.zza G. Winckelmann, 12 00162 Rome	www.ferroviarenordbarese.it	59/2010	10/06/2010	18/06/2009		✓	✓ NO classes 1 and 7	8	0	0	28	0	142349,23
Ferrovie del Gargano S.r.l.	Via Zuppetta, 7/D 70121 Bari	www.ferroviedelgargano.com	11/2008	30/10/2008	31/10/2008	✓			13	0	0	54	279815	0

Railway Undertakings														
Name	Address	Web site	Safety Certificate 14/2001/EC (number and date)		Date of commen- cement of commercial activities	Type of service			Number of units registered (Locomotives, Railcars, Multiple units)	Number of wagons registered	Number of carriages registered	Number of personnel with safety- related duties	Passenger volume (train- kilometres)	Goods volume (train- kilometres)
						Passengers	Goods	RID						
Crossrail Italia S.r.l.	Scalo Ferroviario Domo 2 28851 Beura Cardezza (VB)	www.crossrail.it	73/2010	22/12/2010	09/04/2008		✓	✓ no classes 1 and 7	10	0	0	98	0	671798
In Rail SpA	Via Marino Boccanegra, 15/2 16126 Genoa	www.inrali.it	67/2010	29/07/2010	09/02/2009		✓	✓ no classes 1 and 7	2	0	0	162	0	412504
Ferrovie della Calabria	Via Milano 28 88100 Catanzaro	www.ferroviedellacalabria.it	38/2009	10/12/2009	NO	✓	✓		0	0	0	1	0	0
Rail Italia	Via Ficucella c/o Interporto Sud Europa Edificio 4.1 81024 Maddaloni (CE)	Data not provided by the RU	63/2010	25/06/2010	24/11/2009		✓	✓ no classes 1 and 7	0	0	0	43	0	507080

Railway Undertakings														
Name	Address	Web site	Safety certificate part A and part B 2004/49/EC (number and date)		Date of commencement of commercial activities	Type of service			Number of units registered (Locomotives, Railcars, Multiple units)	Number of wagons registered	Number of carriages registered	Number of personnel with safety-related duties	Passenger volume (train-kilometres)	Goods volume (train-kilometres)
						Passengers	Goods	RID						
TRENITALIA S.p.A.	Piazza della Croce Rossa, 1 00161 Rome	www.trenitalia.com	IT 1120110012 IT 1220110014	30/11/2011 30/11/2011	30/05/2000 <sup>1</sup>	✓	✓	✓ all classes	5915	36693	8166	26283	246806615	28999563
RTC-Rail Traction Company S.p.A.	Via Brennero, 7 39100 Bolzano (BZ)	www.railtraction.it	IT 1120110006 IT 1220110006	05/08/2011 05/08/2011	16/10/2001		✓	✓ no class 7	42	0	0	336	0	2260655
HUPAC S.p.A.	Via Dogana, 8/10 21052 Busto Arsizio (VA)	www.hupac.it	IT 1120110013 IT 1220110015	21/12/2011 21/12/2011	Data not provided by the RU		✓	✓ no class 7	4	0	0	137	0	18065
CFI-Compagnia Ferroviaria Italiana S.p.A.	Piazza Europa 5 05100 Terni	compagniaferroviearitaliana.it	IT 1120110007 IT 1220110007	05/08/2011 05/08/2011	18/08/2009		✓	✓ no classes 1 and 7	6	0	0	76	0	728000

<sup>1</sup> Railway undertaking established from Ferrovie dello Stato

Railway Undertakings														
Name	Address	Web site	Safety certificate part A and part B 2004/49/EC (number and date)		Date of commencement of commercial activities	Type of service			Number of units registered (Locomotives, Railcars, Multiple units)	Number of wagons registered	Number of carriages registered	Number of personnel with safety-related duties	Passenger volume (train-kilometres)	Goods volume (train-kilometres)
						Passengers	Goods	RID						
NTV-Nuovo Trasporto Viaggiatori S.p.A.	Via del Policlinico, 149/b  00161 Rome	www.ntvspa.it	IT 1120110005 IT 1220110008	04/08/2011 19/10/2011	2011	✓			0	0	0	211	0	0
GTS Rail S.r.l.	Via del Tesoro, 15  70123 Bari	www.gtsrail.com	IT 1120110004 IT 1220110004	04/08/2011 04/08/2011	January 2010		✓	✓ no classes 1 and 7	5			91		776203
Go Concept S.r.l.	Via Gramsci, 59/A  15121 Alessandria	www.arenaways.com	IT 1120110003 IT 1220110002	06/05/2011 06/05/2011	2010	✓			1	0	6	46	247743,03	0
ISC-Interporto Servizi Cargo S.p.A.	Via P.E. Imbriani, 30  80132 Naples	www.isc.it	IT 1120110011 IT 1220110012	17/11/2011 17/11/2011	2010		✓	✓ no classes 1 and 7	7	0	0	60	0	631566

Railway Undertakings														
Name	Address	Web site	Safety certificate part A and part B 2004/49/EC (number and date)		Date of commencement of commercial activities	Type of service			Number of units registered (Locomotives, Railcars, Multiple units)	Number of wagons registered	Number of carriages registered	Number of personnel with safety-related duties	Passenger volume (train-kilometres)	Goods volume (train-kilometres)
						Passengers	Goods	RID						
TX Logistik AG Filiale Italia	Via Sommacampagna, 34 37137 Verona	www.txlogistik.de	IT 1120110014 IT 1220110016	21/12/2011 21/12/2011	2011		✓	✓ no classes 1 and 7	2	0	0	7	0	4960
Trenord Srl	Piazzale Cadorna, 14 20123 Milan	www.trenord.it	IT 1120110010 IT 1220110011	17/11/2011 17/11/2011	01/01/2004	✓			270	0	100	3969	20948069,36	0
Società Viaggiatori Italia S.r.l.	Via Nino Bonnet, 6/B 20154 Milan	Data not provided by the RU	IT 1120110009 IT 1220110013	26/10/2011 30/11/2011	14/12/2011	✓			12	0	48	31	27965	0
Oceanogate Italia S.p.A.	Via S.Bartolomeo, 20 19126 La Spezia	www.oceanogateitalia.com	IT 1120110008 IT 1220110009	26/10/2011 26/10/2011	December 2011		✓	✓ no classes 1 and 7	2	0	0	13	0	586





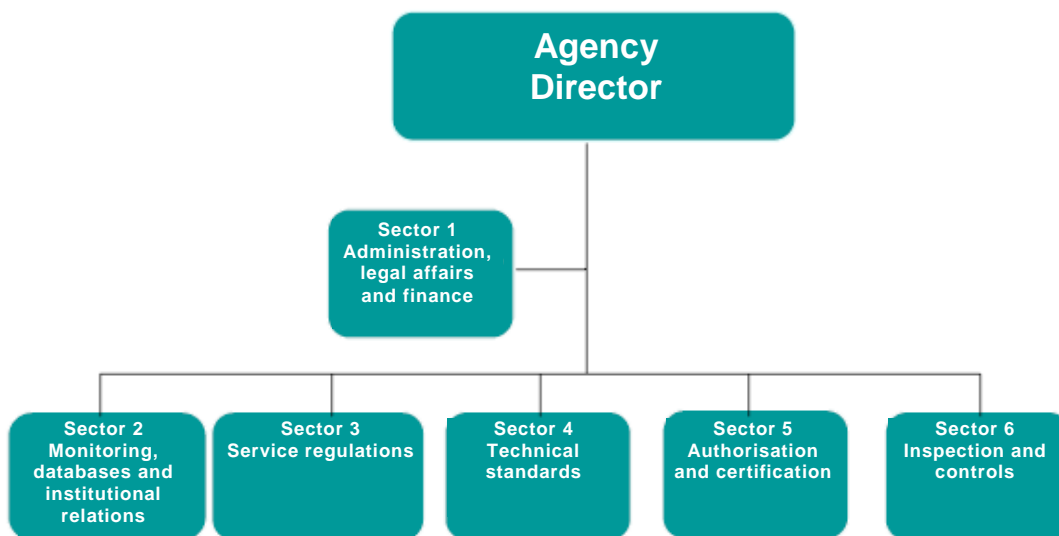
Annex B:            Organisation of the Italian rail system

Annex B.1:        Organisation of the Italian National Safety  
Authority

Annex B.2:        Structure of the Italian rail system



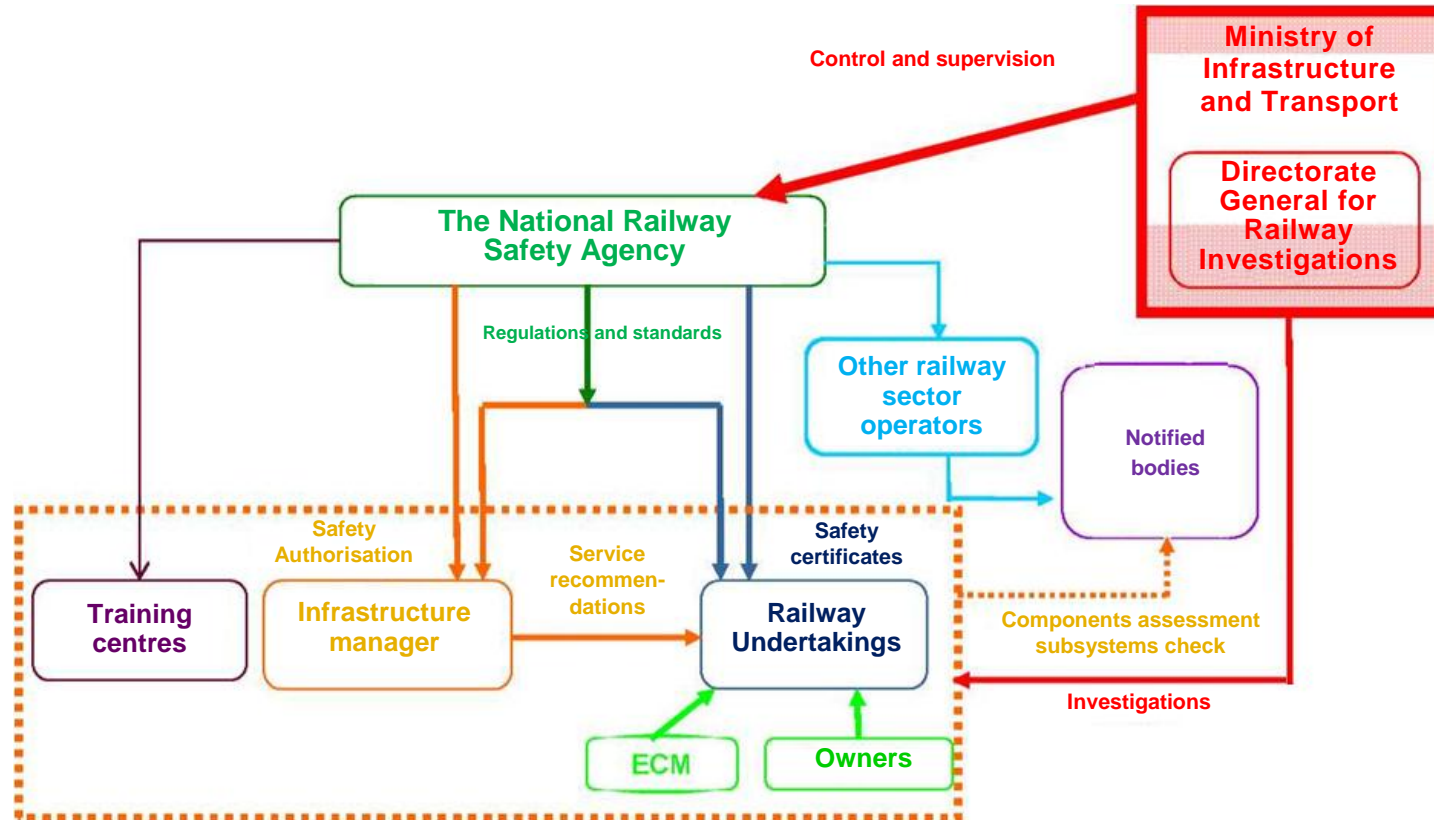
## Annex B.1: Organisation of the Italian National Safety Authority





## Annex B.2: Structure of the Italian rail system

## Structure of the Italian railway system after Legislative Decree 162/2007





Annex C: Data on the Common Safety Indicators

Annex C.1: Common Safety Indicators under Directive  
2004/49/EC



## Annex C.1: Common Safety Indicators under Directive 2004/49/EC

Guidelines for data transmission and file formats ver.2010				
Number	Data Code	Description of data	Data format	Example of data
0. Reporting country details				
01	CC	Reporting country	the two-letter ISO code should be used (ISO 3166 alpha- 2), except for Greece and the United Kingdom, for which the abbreviations EL and UK are recommended	IT
02	YY	Reporting year	8	2011
1.1a. Total number of accidents and a break-down into the following types of accidents				
1	N00	Total Number of all accident	Numeric value	108
2	N01	Number of Collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	6
3	N02	Number of Derailments of trains	Numeric value	4
4	N03	Number of Level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	18
5	N04	Number of Accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	78
6	N05	Number of Fires in rolling stock	Numeric value	0
7	N06	Number of Other accidents	Numeric value	2
1.2a. Total number of suicides				
15	N07	Number of events: suicide	Numeric value	140
1.3a. Total number of accidents involving the transport of dangerous goods divided into the following categories				
17	N18	Total number of accidents involving at least one railway vehicle transporting dangerous goods	Numeric value	4
18	N19	Number of accidents involving at least one railway vehicle transporting dangerous goods in which dangerous goods are NOT released	Numeric value	2
19	N20	Number of accidents involving at least one railway vehicle transporting dangerous goods in which dangerous goods ARE released	Numeric value	2
2.1a. Total number of Persons seriously injured by type of accident divided into the following categories				
23	TS00	Total number in all accidents	Numeric value	34
24	TS01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	0
25	TS02	In derailments of trains	Numeric value	0
26	TS03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	3
27	TS04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	31
28	TS05	In fires in rolling stock	Numeric value	0
29	TS06	In others	Numeric value	0
2.2a. Total number of Passengers seriously injured by type of accident divided into the following categories				
37	PS00	Total number in all accidents	Numeric value	4
38	PS01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	0
39	PS02	In derailments of trains	Numeric value	0
40	PS03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	2
41	PS04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	2
42	PS05	In fires in rolling stock	Numeric value	0
43	PS06	In others	Numeric value	0
2.3a. Total number of Employees including the staff of contractors seriously injured by type of accident divided into the following categories				
65	SS00	Total number in all accidents	Numeric value	0
66	SS01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	0
67	SS02	In derailments of trains	Numeric value	0
68	SS03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	0
69	SS04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	0
70	SS05	In fires in rolling stock	Numeric value	0
71	SS06	In others	Numeric value	0
2.4a. Total number of Level-crossing users seriously injured by type of accident divided into the following categories				
79	LS00	Total number in all accidents	Numeric value	1
80	LS01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	0
81	LS02	In derailments of trains	Numeric value	0
82	LS03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	1
83	LS04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	0
84	LS05	In fires in rolling stock	Numeric value	0
85	LS06	In others	Numeric value	0
2.5a. Total number of Unauthorised persons seriously injured by type of accident divided into the following categories				
93	US00	Total number in all accidents	Numeric value	29
94	US01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	0
95	US02	In derailments of trains	Numeric value	0
96	US03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	0



Guidelines for data transmission and file formats ver.2010				
Number	Data Code	Description of data	Data format	Example of data
97	US04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	29
98	US05	In fires in rolling stock	Numeric value	0
99	US06	In others	Numeric value	0
2.6a. Total number of Other persons seriously injured by type of accident divided into the following categories				
107	OS00	Total number in all accidents	Numeric value	0
108	OS01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	0
109	OS02	In derailments of trains	Numeric value	0
110	OS03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	0
111	OS04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	0
112	OS05	In fires in rolling stock	Numeric value	0
113	OS06	In others	Numeric value	0
3.1a. Total number of Persons killed by type of accident divided into the following categories				
121	TK00	Total number in all accidents	Numeric value	65
122	TK01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	0
123	TK02	In derailments of trains	Numeric value	0
124	TK03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	15
125	TK04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	50
126	TK05	In fires in rolling stock	Numeric value	0
127	TK06	In others	Numeric value	0
3.2a. Total number of Passengers killed by type of accident divided into the following categories				
135	PK00	Total number in all accidents	Numeric value	0
136	PK01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	0
137	PK02	In derailments of trains	Numeric value	0
138	PK03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	0
139	PK04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	0
140	PK05	In fires in rolling stock	Numeric value	0
141	PK06	In others	Numeric value	0
3.3a. Total number of Employees including the staff of contractors killed by type of accident divided into the following categories				
163	SK00	Total number in all accidents	Numeric value	1
164	SK01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	0
165	SK02	In derailments of trains	Numeric value	0
166	SK03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	0
167	SK04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	1
168	SK05	In fires in rolling stock	Numeric value	0
169	SK06	In others	Numeric value	0

Number	Data Code	Description of data	Data format	Example of data
3.4a. Total number of Level-crossing users killed by type of accident divided into the following categories				
177	LK00	Total number in all accidents	Numeric value	15
178	LK01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	0
179	LK02	In derailments of trains	Numeric value	0
180	LK03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	15
181	LK04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	0
182	LK05	In fires in rolling stock	Numeric value	0
183	LK06	In others	Numeric value	0
3.5a. Total number of Unauthorised persons killed by type of accident divided into the following categories				
191	UK00	Total number in all accidents	Numeric value	49
192	UK01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	0
193	UK02	In derailments of trains	Numeric value	0
194	UK03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	0
195	UK04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	49
196	UK05	In fires in rolling stock	Numeric value	0
197	UK06	In others	Numeric value	0
3.6a. Total number of Other persons killed by type of accident divided into the following categories				
205	OK00	Total number in all accidents	Numeric value	0
206	OK01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	0
207	OK02	In derailments of trains	Numeric value	0
208	OK03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	0
209	OK04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	0
210	OK05	In fires in rolling stock	Numeric value	0
211	OK06	In others	Numeric value	0
4.1a. Total number of events relating to precursors of accidents and a break-down into the following types				
219	I00	Total number of precursors	Numeric value	#VALORE!
220	I01	Total number of broken rails	Numeric value	na
221	I02	Total number of track buckles	Numeric value	na
222	I03	Total number of wrong-side signalling failures	Numeric value	na
223	I04	Total number of signals passed at danger	Numeric value	12
224	I05	Total number of broken wheels on rolling stock in service	Numeric value	1
225	I06	Total number of broken axles on rolling stock in service	Numeric value	1
5.1a. Indicators to calculate the economic impact of accidents				
233	C00	Economic impact of ALL accidents	Numeric value in €	-
234	C10	Economic impact of significant accidents ONLY	Numeric value in €	0
235	C01	Economic impact of fatalities	Numeric value in €	0
236	C02	Economic impact of serious injuries	Numeric value in €	0
As a result of ALL accidents				
237	C03	Cost of material damages to rolling stock or infrastructure (all accidents)	Numeric value in €	na
238	C07	Cost of damage to the environment (all accidents)	Numeric value in €	na
239	C04	Cost of delays as a consequence of all accidents	Numeric value in €	0
240	C05	Minutes of delays of passenger trains (all accidents)	Numeric value (minutes)	na
241	C06	Minutes of delays of freight trains (all accidents)	Numeric value (minutes)	na
As a result of significant accidents ONLY				
242	C13	Cost of material damages to rolling stock or infrastructure (significant accidents)	Numeric value in €	na
243	C17	Cost of damage to the environment (significant accidents)	Numeric value in €	0,000
244	C14	Cost of delays as a consequence of significant accidents	Numeric value in €	0
245	C15	Minutes of delays of passenger trains (significant accidents)	Numeric value (minutes)	na
246	C16	Minutes of delays of freight trains (significant accidents)	Numeric value (minutes)	na
6.1a. Indicators relating to technical safety of infrastructure and its implementation				
255	T01	Percentage of tracks with Automatic Train Protection (ATP) in operation	Numeric value (%) (67% = 0.67)	100,00%
256	T02	Percentage of train kilometres using operational ATP systems	Numeric value (%)	99,40%
257	T03	Total number of level crossings (active and passive)	Numeric value	na
258	T06	Total number of active level crossings	Numeric value	na
259	T07	with automatic user-side warning	Numeric value	na
260	T08	with automatic user-side protection	Numeric value	na
261	T09	with automatic user-side protection and warning	Numeric value	na
262	T10	with automatic user-side protection and warning, and rail-side protection	Numeric value	na
263	T11	with manual user-side warning	Numeric value	na

Number	Data Code	Description of data	Data format	Example of data
264	T12	with manual user-side protection	Numeric value	na
265	T13	with manual user-side protection and warning	Numeric value	na
266	T14	Total number of passive level crossings	Numeric value	na
7. Indicators relating to the management of safety				
287	A01	Total number of accomplished audits	Numeric value	1113
288	A02	Percentage of audits accomplished /required (and/or planned).	Numeric value (%)	85,88%
8. Reference data traffic and infrastructure				
289	R01	Total number of Train km	Numeric value (in million Train*km)	317,377
290	R02	Number of Passenger km	Numeric value (in million Passenger*km)	41325,742
291	R05	Number of Passenger train km	Numeric value (in million Train*km)	273,642
292	R06	Number of Freight train km	Numeric value (in million Train*km)	43,163
293	R04	Number of Other train km	Numeric value (in million Train*km)	0,571
294	R07	Number of Freight tonne km	Numeric value (in million tonne*km)	21308,958
295	R08	Number of line kilometres (double track lines are to be counted ONCE)	Numeric value (in km)	na
296	R03	Number of track kilometres (double track lines are to be counted TWICE)	Numeric value (in km)	na



## Annex D: Main changes in legislation and regulations

	LEGISLATION	DATE OF ENTRY INTO FORCE OF LEGISLATION	GROUND FOR INTRODUCTION (STATE WHETHER NEW LAW OR AMENDMENT TO EXISTING LAW)	PARTICULARS
NATIONAL LEGISLATION RELATING GENERALLY TO RAILWAY SAFETY				
	Legislative Decree No 43 of 24 March 2011	30/04/2011	Amendment 'Implementation of Directive 2008/110/EC which amends Directive 2004/49/EC on the safety of the Community's railways.'	Amendments and additions to Legislative Decree 162/2007
	Legislative Decree No 61 of 11 April 2011	05/05/2011	New. Implementation of Directive 2008/114/EC on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection	Designation of European critical infrastructures
	Law No 214 of 22 December 2011	28/12/2011	New. Conversion into law, with amendments, of Decree Law No 201 of 6 December 2011 with urgent provisions for growth, equity and consolidation of public finances.	Establishment of the Transport Regulation Authority
Legislation concerning the national authority responsible for safety	Presidential Decree No 224 of 15 November 2011	20/01/2011	New. Regulation governing the recruitment of personnel by the National Railway Safety Agency, pursuant to Article 4(6)(b) and (c) of Legislative Decree No 162 of 10 August 2007.	Regulations on the recruitment of ANSF personnel
NATIONAL REGULATIONS RELATING TO RAILWAY SAFETY				
Regulations relating to objectives and safety methods in force at national level	ANSF memo 01/2011 of 13 May 2011	13/05/2011	New. Application of Regulation (EC) No 352/2009	ANSF GUIDELINES No 001/2011 FOR THE APPLICATION OF REGULATION (EC) No 352/2009 of the Commission of 24 April 2009
Regulations relating to requirements of railway undertaking safety management and certification systems, and regulations concerning requirements relating to infrastructure manager safety management systems	Ministerial Decree No 19 of 24 January 2011	26/03/2011	New. Regulation on the application within the railway transport system of Decree No 388 of 15 July 2003, pursuant to Article 45(3) of Legislative Decree No 81 of 9 April 2008.	Organisation of railway emergency services
	Ministerial Decree 2 February 2011	08/04/2011	New. Identification of the requirements for issue of the national passengers licence for the performance of rail passenger services with the origin and destination in Italy.	Identification of the requirements for issue of the national passengers licence for the performance of rail passenger services with the origin and destination in Italy.
	Ministerial Decree 18 March 2011	21/06/2011	Determination of the criteria and methods for the diffusion of automated external defibrillators pursuant to Article 2(46) of Law No 191/2009 in locations where there is a high flow of persons or activities at risk: large or small airports, railway stations or sea ports, industrial structures	Criteria and methods for diffusion of automated external defibrillators
	ANSF Decree 4/2001 of 28 March 2011	28/03/2001	New. Qualification of the Head of the Safety Management System	Regulations for qualification of the Head of the Safety Management System and amendments to Decree 1/2009 of 6 April 2009 by the Director of the Agency

	LEGISLATION	DATE OF ENTRY INTO FORCE OF LEGISLATION	GROUND FOR INTRODUCTION (STATE WHETHER NEW LAW OR AMENDMENT TO EXISTING LAW)	PARTICULARS
	ANSF memo 07011/11 of 18 November 2011	08/11/2011	Amendment. Process for issue of safety certificate part A and part B, issue of check list.	Issue of check list to facilitate the Railway Undertakings in the correct completion of the documents for part B of the safety certificate
	ANSF memo 01479/11 of 8 March 2010	08/03/2011	New. Conditions for access to the stretches of line between the State border and the border station between the networks of Railway Undertakings which do not already gain access in compliance with the current agreements and conventions.	Guidelines for issue of the authorisation for access to the border stretches of line.
Regulations concerning requirements for wagon owners	Ministerial Decree 3 January 2011	15/04/2011	New. Authorisation for the national transport of tanks for carrying Class 2 hazardous goods under the RID and harmonization of the Decrees of 12 September 1925 and 22 July 1930, with the Annex II «Rail Transport» of Legislative Decree No 35 of 27 January 2010, for implementation of Directive 2008/68/EC on the inland transport of hazardous goods.	Harmonization of the transport of hazardous goods
	Ministerial Decree 28 March 2011	21/04/2011	New. Accreditation of the experts for performance of tests on the tanks of the tank wagons, pursuant to paragraph 6.8.2.4.6 of the regulation on the carriage of hazardous goods by rail (RID).	Accreditation of the experts for performance of tests on the tanks of the tank wagons.
Regulations concerning requirements for maintenance workshops	NONE			
Regulations on requirements for authorisation for service start-up and maintenance of new or substantially modified rolling stock, including regulations governing the exchange of rolling stock between Railway Undertakings, registration systems and requirements relating to the inspection procedures	Presidential Decree 151	7/10/2011	New. Regulation on the simplification of the procedures regarding the prevention of accidents, pursuant to Article 49(4-quater) of Law Decree No 78 of 31 May 2010, converted, with amendments, from Law No 122 of 30 July 2010.	Regulation on the prevention of accidents
Regulations relating to requirements to be satisfied by personnel performing essential safety tasks, including selection criteria, medical fitness, vocational training and certification	ANSF Decree 08/2011 of 15 September 2011	16/09/2011	New. Licences for drivers driving locomotives and trains on the Community rail system (Directive 2007/59/EC and Legislative Decree 247/2010)	Licences for drivers driving locomotives and trains on the Community rail system
	ANSF memo 03842/2011 of 15 June 2011	15/06/2011	Request for clarifications by Railway Undertakings.	Upgrading standard of knowledge of the systems. Collaboration between Railway Undertakings for examination commission.
	ANSF memo 01202/11 of 25 February 2011	25/02/2011	Amendment. Changed reference context.	Training of personnel with safety-related duties - adoption of training programmes by Railway Undertakings and Infrastructure Manager
Regulations on investigations into accidents and incidents, including recommendations	ANSF memo 00603/11 31 January 2011	31/01/2011	Derailment of train 46676 of 16/06/2010.	Safety recommendations issued by the Austrian Rail Safety Authority (BMVIT) after derailment of train 46676 of 16/06/2010.

	LEGISLATION	DATE OF ENTRY INTO FORCE OF LEGISLATION	GROUND FOR INTRODUCTION (STATE WHETHER NEW LAW OR AMENDMENT TO EXISTING LAW)	PARTICULARS
	ANSF memo 00750/11 of 7 February 2011	07/02/2011	Supplements to ANSF memos Ref. No. 03516/2010 of 07/06/2010 and Ref. No 03864/10 of 21/06/2010 following derailment of a goods train due to failure of a wheel.	Safety recommendations issued by the French Rail Safety Authority (EPSF) after the accident in France on 2/05/2010 - Derailment of a goods train due to failure of a wheel.
	ANSF memo 01477/11 of 8 March 2011	08/03/2011	Various cases of splitting of goods trains	Precautionary measures for transport safety, regarding the loading weight of goods trains.
	ANSF memo 01683/11 of 18 March 2011	18/03/2011	Axle breakage of a wagon in a train composition.	Measures issued by the EPSF, following the derailment of a goods train on 09/03/2011 due to axle breakage of a wagon making up train. This memo also extends the prohibition of movement of the wagons in question to the Italian Rail Network.
	ANSF memo 01840/11 of 24 March 2011	24/03/2011	Addition to the memo Ref. No ANSF 08314/2010 of 23 December 2010	Additional measure to all the Railway Undertakings and to the Infrastructure Manager with the safety recommendation issued by the Austrian Investigating Body following the accident in Austria on 9 December 2010.
	ANSF memo 03061/2011 of 13 May 2011	13/05/2011	Axle breakage of a wagon in a train composition.	Updating of the measures issued by the EPSF, following the derailment of a goods train on 09/03/2011 due to axle breakage of a wagon making up train.
Regulations on requirements of national safety indicators, including regulations on the method of collecting and analysing indicators	ANSF memo 03556/11 of 1 June 2011	01/06/2011	Updating of the guidelines and tables following the entering into force of the Decree of 10/09/2010 which implemented Directive 149/2009/EC of 27/11/2009.	Guidelines and tables for drawing up the annual safety Report.
Regulations relating to requirements for authorisation for service start-up of infrastructures (rails, bridges, tunnels, energy, ATC - Automatic train control, radio, signalling systems, central devices, level crossings, platforms, etc.)	NONE			
Regulations on instructions for personnel responsible for safety tasks	NONE			
Regulations for operating the railway network, including regulations on signalling and traffic management systems	ANSF Directive 1/dir/2011 of 27 June 2011	15/07/2011	New. Train movements on the lines operated by RFI equipped with TMCS and TDSS ; the requirements of this Directive replace those relative to Directives 1/dir/2009 of 03/06/2009 and 2/dir /2010 of 9/11/2010.	New requirements for the movement of trains on lines operated by RFI and equipped with TMCS and TDSS .

	LEGISLATION	DATE OF ENTRY INTO FORCE OF LEGISLATION	GROUND FOR INTRODUCTION (STATE WHETHER NEW LAW OR AMENDMENT TO EXISTING LAW)	PARTICULARS
	ANSF Decree 2/2011 of 23 February 2011	23/02/2011	Updating of ANSF Decree 1/2009 of 6 April 2009	Update regarding the elimination from Annex B of the regulatory circulars which are already implemented in the regulatory texts and of those relative to superseded organisational and technical contexts.
	ANSF Decree 3/2011 of 2 March 2011	02/06/2011	Memo of SBB Cargo Italia Ref. No DT/245/10/gm of 06/12/2010 with which an amendment is proposed to Articles 3, 9 and 10 of the Regulation on Signals, relative to the use on the Italian Rail Network of the 'Swiss' type portable headlights for signalling the tail of trains	Amendments to the Regulation on Signals regarding the use of 'Swiss' type portable headlights for signalling the tail of trains.
	ANSF memo 01742/11 of 21 March 2011	01/07/2011	Amendment. Movement of passenger and goods trains which do not have a train movement protection system which is compatible with the available trackside system	Train movement protection systems on the conventional network (not high speed) operated by RFI. The movement of passenger and goods trains which do not have a train movement protection system which is compatible with the available trackside system is prohibited since 1 July 2011.
	ANSF memo 00144/11 of 11 January 2011	11/01/2011	Accidents to passengers boarding or leaving trains on the side opposite to that on which the passenger service is provided.	Adoption of measures for the reduction of risks linked with passengers boarding or leaving trains on the side opposite to that on which the passenger service is provided.
	ANSF memo 00311/11 of 18 January 2011	18/01/2011	Amendment. IPCL, Article 3(1/c)	IPCL, Article 3(1/c) - Movement of isolated locomotives so that the traction unit reaches the train or the departures and arrivals depot.
	ANSF memo 00402/11 of 20 January 2011	20/01/2011	Limitations on the stoppage of wagons carrying hazardous goods	Traceability of the information regarding trains carrying hazardous goods



	LEGISLATION	DATE OF ENTRY INTO FORCE OF LEGISLATION	GROUND FOR INTRODUCTION (STATE WHETHER NEW LAW OR AMENDMENT TO EXISTING LAW)	PARTICULARS
	ANSF memo 00451/11 of 24 January 2011	24/01/2011	Driving module	Request for assessments regarding the cab module of Vicinali type and medium-range npBD driving carriages, Electric Railcars Ale 801, Ale 940, Ale 803, Le 803, Ale 841, Diesel Railcars Aln 668, Aln 663 equipped with through cab.
	ANSF memo 00968/11 of 16 February 2011	16/02/2011	Amendment to the values of the maximum towable weight.	Maximum weight towable by the gr. E186 and E 483 locomotives on the Brenner-Bolzano line
	ANSF memo 01126/11 of 23 February 2011	23/02/2011	Issue of load example	Transport of wagons departing from SEVEL junction, Fossacesia T.S. station, destined for Ghislenghien (Belgium)
	ANSF memo 01286/11 of 1 March 2011	01/03/2011	Modification to systems	Florence Rifredi station. New goods depot. Authorisation request for forward movement signal on departure repeating signal.
	ANSF memo 01408/11 of 4 March 2011	04/03/2011	Amendment. Running conditions in the event of a fault to the protection system	Use of on-board subsystem of the train movement protection systems.
	ANSF memo 01738/11 of 21 March 2011	21/03/2011	Amendment. Article 3(13bis) of the Regulation for the Running of Trains	Article 3(13bis) of the Regulation for the Running of Trains.
	ANSF memo 02092/11 of 1 April 2011	01/04/2011	Addition to the ANSF memo 01408/11 of 4 March 2011	Use of on-board subsystem of the train movement protection systems.

	LEGISLATION	DATE OF ENTRY INTO FORCE OF LEGISLATION	GROUND FOR INTRODUCTION (STATE WHETHER NEW LAW OR AMENDMENT TO EXISTING LAW)	PARTICULARS
	ANSF memo 02105/11 of 4 April 2011	04/04/2011	Clarification on the updating of the regulatory texts while awaiting the reorganisation process	Amendments to the regulatory texts while awaiting the process for reorganisation of the service regulations: safeguarding measures.
	ANSF memo 02985/11 of 10 May 2011	10/05/2011	Addition to the ANSF memo 02105/11 of 4 April 2011	Amendments to regulations while awaiting the process for reorganisation of the service regulations. With reference to the memo of this Agency No 02105/11 of 04 April 2011
	ANSF memo 03290/11 of 23 May 2011	23/05/2011	Level crossing not protected and stretches of line without protection	Critical issues detected during inspection on 12/05/2011 along the Ancona - Ancona Marittima stretch
	ANSF memo 03291/11 of 23 May 2011	23/05/2011	Amendment to driving module	Trials of goods trains performed with Multifunctional Cargo Technician.
	ANSF memo 03458/11 of 30 May 2011	30/05/2011	Reply to memo by Infrastructure Manager on application of ANSF Decree 15/2010	ANSF Decree 15/2010 Shunting movements of work equipment
	ANSF memo 04044/11 of 23 June 2011	23/06/2011	Movement conditions limited without train movement protection.	Movement of trains carrying hazardous goods on the Sannazzaro - Cava Carbonara - Pavia sections without train movement protection active.
	ANSF memo 04121/11 of 27 June 2011	27/06/2011	Replacement measure of ANSF memo 01478/11 of 8 March 2011.	Trains for goods or passenger service served by rolling stock equipped with SSB TMCS and running on TE lines in Sicily equipped with SST TDSS .

	LEGISLATION	DATE OF ENTRY INTO FORCE OF LEGISLATION	GROUND FOR INTRODUCTION (STATE WHETHER NEW LAW OR AMENDMENT TO EXISTING LAW)	PARTICULARS
	ANSF memo 04112/11 of 27 June 2011	27/06/2011	Clarification on Directive 1/dir/2011	Running of trains on lines operated by RFI with TMCS and TDSS since 15 July 2011 following issue of Directive 1/dir/2011 by this Agency.
	ANSF memo 04487/11 of 11 July 2011	11/07/2011	Reply to memo by Railway Undertaking Trenitalia for the use for recovery of D145 and D146 locomotives	Use for recovery of D145 and D146 locomotives
	ANSF memo 04605/11 of 15 July 2011	15/07/2011	Reply to memo by Railway Undertaking Trenitalia.	Specific ST/TMCS application (supplied by Ansaldo) of the general application STB/TMCS ETR 500
	ANSF memo 04638/11 of 18 July 2011	18/07/2011	Clarification on Directive 1/dir/2011	Goods transport with locomotive E483 on the Termoli-Guglionesi TDSS line.
	ANSF memo 05675/11 of 12 September 2011	12/09/2011	Amendment to RFI instruction 60 of 13 December 2006	Amendment to RFI order No 60 of 13 December 2006 regarding 'Special regulations for operating Milan rail interconnection'.
	ANSF memo 06350/11 of 7 October 2011	07/10/2011	Amendment. Updating PGOS [ <i>Prefazione generale all'orario di servizio - General introduction to the service timetable</i> ]	Updating of Tables limitations Article No 119 PGOS (General introduction to the service timetable), Annex IV (maximum axle weights permitted on the lines of the national Railway Undertaking and conditions for approval), Annex IV bis (lines of the national Railway Undertaking coded for combined traffic).
	ANSF memo 06811/11 of 28 October 2011	28/10/2011	Authorisation with reference to Directive 1/dir/2011 of 27/06/2011	Authorisation with reference to Directive 1/dir/2011 of 27/06/2011

	LEGISLATION	DATE OF ENTRY INTO FORCE OF LEGISLATION	GROUND FOR INTRODUCTION (STATE WHETHER NEW LAW OR AMENDMENT TO EXISTING LAW)	PARTICULARS
	ANSF memo 06812/11 of 28 October 2011	28/10/2011	Authorisation with reference to Directive 1/dir/2011 of 27/06/2011	Authorisation with reference to Directive 1/dir/2011 of 27 June 2011
	ANSF memo 06813/11 of 27 June 2011	27/06/2011	Authorisation with reference to Directive 1/dir/2011 of 27/06/2011	Authorisation with reference to Directive 1/dir/2011 of 27 June 2011
	ANSF memo 07487/11 of 25 November 2011	25/11/2011	Amendment to signals regulation	Addition to Article 24(8) of the Signals Regulation.



Annex E: Safety certificates and authorisations - 2010

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

## E.1 safety certificates pursuant to Directive 2004/49/EC.

<p>A. In order to guarantee that the information on ERADIS (European Railway Agency Database of Interoperability and Safety) is updated, indicate the number of existing certificates in ERADIS which were valid at the end of the reference year</p> <p>B. Ensure that the information provided in this table is in line with the information provided in section 'G. Supervision of the Railway Undertakings and the Infrastructure Managers'</p>		Total number of certificates	Number of certificates Part A in ERADIS	
E.1.1. Number of safety certificates Part A, also issued in previous years and which are still valid at the end of 2011.		12	12	

<p>C. In order to guarantee that the information on ERADIS (European Railway Agency Database of Interoperability and Safety) is updated, indicate the number of existing certificates in ERADIS which were valid at the end of the reference year</p> <p>D. Ensure that the information provided in this table is in line with the information provided in section 'G. Supervision of the Railway Undertakings and the Infrastructure Managers'</p>		Total number of certificates	Number of certificates Part B in ERADIS	
E.1.2. Number of safety certificates part B, issued in previous years by your Member State and still valid for 2011.	Number of safety certificates part B for which part A has been issued in the Member State	12	12	
	Number of safety certificates part B for which part A has been issued in another Member State	--	--	

Please provide a contribution on the safety certificate applications part A, received in the reference year, for new certificates or existing certificates which need to be renewed, updated or modified				
E.1.3. Number of safety certificate applications part A presented by the Railway Undertakings for	New certificates	--	--	1
	Updated/amended certificates	1	--	1

2011		Renewed certificates	--	--	--
Please provide a contribution on the safety certificate applications part B, received in the reference year, for new certificates or existing certificates which need to be renewed, updated or modified			A	R	P
E.1.4. Number of safety certificate applications part B presented by the Railway Undertakings for 2011	If part A has been issued in the Member State	New certificates	--	--	1
		Updated/amended certificates	3	--	1
		Renewed certificates	--	--	--
	If part A has been issued in another Member State	New certificates	--	--	--
		Updated/amended certificates	--	--	--
		Renewed certificates	--	--	--

A = application accepted, the certificate has already been issued

R = applications rejected, no certificate has been issued

P = matter still pending, no certificate has yet been issued

In order to guarantee that the information on ERADIS is updated, indicate the number of certificates revoked at the end of the reference year	Total number of certificates revoked in 2011	Number of certificates revoked in ERADIS (which were revoked in 2011)
E 1.5 Number of safety certificates part A revoked during the current reference year	1	1
E 1.6 Number of safety certificates part B revoked during the current reference year	1	1

E.1.7. List of countries in which the Railway Undertakings that have presented the application for the safety certificate part B have obtained their safety certificate part A

Name of Railway	Member State in which safety certificate part A has been issued

E.2. Safety authorisations pursuant to Directive 2004/49/EC.

Ensure that the information provided in this table is in line with the information provided in section 'G. Supervision of the Railway Undertakings and the Infrastructure Managers	Total number of safety authorisations		
--	---------------------------------------	--	--

E.2.1. Number of valid safety authorisations issued to the infrastructure managers in the reference year and in the previous years and which are still valid at the end of 2011		--		
Guide: Please provide a contribution on the safety authorisation applications received in the reference year, for new authorisations or existing authorisations which need to be renewed, updated or modified		A	R	P
E.2.2. Number of safety authorisation applications presented by the Infrastructure Managers in 2011	New authorisations	--	--	<b>1</b>
	Updated/amended authorisations	--	--	--
	Authorisations renewed	--	--	--

A = application accepted, the certificate has already been issued

R = applications rejected, no certificate has been issued

P = matter still pending, no authorisation has yet been issued

E 2.3 Number of safety authorisations revoked during the current reference year	--
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### E.3. Procedural aspects - safety certificates part A

		New	Updated/amended	Renewed
Average time between the receipt of the application with all the requested information and the issue of a safety certificate, part A for 2011		--	14 days	--

### E.4. Procedural aspects - safety certificates part B

		New	Updated/amended	Renewed
Average time between the receipt of the application with all the requested information and the issue of a safety certificate, part B for 2011	If part A has been issued in the Member State	--	20 days	--
	If part B has been issued in another Member State	--	--	--



## E.5. Procedural aspects - Safety authorisations

		New	Updated/amended	Renewed
Average time between the receipt of the application with all the requested information and the issue of a safety authorisation for 2011		--	--	--