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EUROPEAN RAILWAY AGENCY
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FRANCE

Object: Annual Safety Report – 2010
Attachment: 1

As required by Article 18 of Directive 2004/49/EC on safety on the Community's railways (Railway Safety Directive), please find here attached the Italian Annual Safety Report – 2010, also sent by email to NSAreport@era.europa.eu.

The Director
Mr Alberto Chiovelli



ANNUAL SAFETY REPORT

for Italian railways regulated by the Italian National Safety Authority

2010

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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 describes the trend in safety over the course of the year 2010 for that part of the Italian railway system consisting of the national railway infrastructure managed under concession by Rete Ferroviaria Italiana S.p.A. under Decree 138-T of 31 October 2000 of the Transport Ministry (date of concession instrument) and of the rail transport service operated on the infrastructure by the Railway Undertakings holding a safety certificate.

With regard to the regional networks, the application of Legislative Decree No 162 of 10 August 2007 was postponed for three years, as laid down in Article 27(4) of the same decree. By subsequent Ministerial Decree No 0000813 of 29 October 2010 the application of Legislative Decree No 162 of 10 August 2007 was conditional on the completion of the technology of the networks with systems suitable to protect train movements so as to make the technological levels of the regional networks homogeneous with those of the national network. Consequently, supervision of the safety of the railway operations on the regional networks is still carried out directly by the Ministry of Infrastructure and Transport. Since data for the regional networks are not available with the accuracy necessary for calculation of the common safety indicators (CSI), the CSI provided in this report only relate to the network managed by Rete Ferroviaria Italiana S.p.A. (RFI) [Italian Railway Network].

A.2 Summary in English

PURPOSE AND SCOPE OF THE REPORT

This report has been compiled in accordance with Article 7 of Legislative Decree No 162 of 10 August 2007 on ‘Implementation of Directives 2004/49/EC and 2004/51/EC’, incorporation of Article 18 of Directive 2004/49/EC.

It describes the development of safety within the Italian railway system under the supervision of the Italian National Safety Authority in 2010, consisting of:

- the national railway infrastructure managed by Rete Ferroviaria Italiana S.p.A. (RFI) [Italian Railway Network], in application of Decree No 138-T of 31 October 2000 of the Ministry of Transport;
- the Railway Undertakings operating on the network managed by the RFI.

The report has been structured in line with the ERA documents: 'Template-Structure for the content of the NSA Annual Safety Report' (Version 14 of 25/08/2009) and 'Guidelines for the use of the template – structure for the content of the NSA Annual Safety Report' (Version 10 of 25/08/2009). It is published on the Italian National Safety Authority website (www.ansf.it).

ORGANISATION

As of 1 January 2010, the Italian National Safety Authority is responsible for the supervision of safety activities of the national infrastructure manager (RFI).

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

- technical regulation;
- technical admission of rolling stock;
- technical admission of infrastructural subsystems;
- safety certification of the RUs (Railway Undertakings) and the safety authorisation of the IM (Infrastructure Manager);
- audit and monitoring activity of RUs and the IM.

THE DEVELOPMENT OF RAILWAY SAFETY

During 2010, the most significant safety measures triggered by accidents/precursors were the following:

- organisational measures to prevent SPAD (Signals passed at danger) by RUs circulating on regional networks connected with the national network;
- enforcement of training of IM maintenance personnel;
- measures to improve the maintenance of doors of passenger trains;
- checks on all MAV 55 flat cars running on the Italian network;
- measures to prevent SPAD by Austrian RUs leaving the Italian network and joining the Austrian network;
- technological and organisational measures to improve the safety of passengers getting on or off a train served by platforms on both sides.

The most significant safety measures triggered other than by accidents/precursors are:

- requests to improve the SMS (Safety Management Systems) processes in order to obtain safety certificates and safety authorisations;
- requests to improve risk management procedures;
- issuing of guidelines for RUs in order to fulfil the requirements necessary to obtain safety certificate parts A and B;
- training for personnel of the IM and RUs responsible for the SMS processes;
- rules to mitigate risks relating to shunting movements;
- obligation to check trains carrying dangerous goods before departure;
- regulation of technical admission of self-propelled vehicles used for the maintenance of infrastructure;
- rules on protection from train circulation of maintenance jobsites on railway premises;
- other restrictions for trains without ATP systems;
- issuance of guidelines to recognised training centres;
- identification of roles and responsibilities in technical admission processes.

The data concerning CSI (common safety indicators) refer only to the infrastructure managed by the RFI. The Italian National Safety Authority has not yet acquired the relevant competences on the lines connected with the infrastructure managed by the RFI. For 2010, it was decided not to make any further use of the data furnished by ISTAT, since they do not satisfy the accuracy requirements required by Directive 149/2009/EC. Consequently, the CSI of this report are not perfectly comparable with the CSI provided in the previous years.

IMPORTANT CHANGES IN LEGISLATION AND REGULATION

During 2010 the following EU directives were incorporated into the national legislative framework:

- 2007/58/EC (Legislative Decree No 15 of 25 January 2010),
- 2008/68/EC (Legislative Decree No 35 of 27 January 2010),
- 2008/57/EC and 2009/131/EC (Legislative Decree No 191 of 8 October 2010),
- 2005/47/EC (Legislative Decree No 264 of 23 December 2010),
- 2007/59/EC (Legislative Decree No 247 of 30 December 2010),
- 2009/149/EC (Decree of the Ministry of Infrastructure and Transport of 10 September 2010).

In 2010, the revision of operation and safety rules continued to adapt them to the new legal framework.

THE DEVELOPMENT OF SAFETY CERTIFICATION AND AUTHORISATION

Neither safety certificates nor safety authorisations have been delivered in accordance with Articles 10 and 11 of Directive 2004/49/EC, as implemented by Legislative Decree No 162 of 10/08/2007.

Until 30/06/2010, the new certificates and their extensions were delivered according to existing procedures.

In March 2010, the guidelines for delivering the safety certificate parts A and B were issued by the Italian National Safety Authority. By 31/12/2010, all the RUs had applied for conversion of their safety certificates, as required by EU Regulation No 653/2007.

The Italian National Safety Authority assumed the competence to deliver Safety Authorisations at the beginning of 2010.

SUPERVISION OF RAILWAY UNDERTAKINGS AND INFRASTRUCTURE MANAGER

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

- data trend monitoring and analysis;
- analysis of accidents, incidents and their causes with a view to adopting appropriate mitigation measures;
- audit and inspections;
- analysis of the Annual Safety Reports by RUs and the IM.

REPORTING ON THE APPLICATION OF THE CSM (COMMON SAFETY METHOD) ON RISK EVALUATION AND ASSESSMENT

RU and IM voluntary applications of EU Regulation No 352/2009, mainly with changes of operational procedures.

CONCLUSIONS, PRIORITIES, SAFETY RECOMMENDATIONS

The NSA confirmed, however, the 2009 targets listed below:

- reduction of the technological and structural discontinuities within the railway system and in the external interfaces;
- reduction of human factor errors;
- reduction of failings in the infrastructure and rolling stock maintenance process.

The final step is the equipping of the technological systems for ATP.

It is still necessary to improve the effectiveness of the safety management systems. In 2010, there was a decrease of incidents connected with the transport of dangerous goods (load problems or defectiveness of the tanks), mainly due to improvements in the control system and border checks prior to departure of the train from the first Italian location. The Italian National Safety Authority has assumed the competence to deliver Safety Authorisations at the beginning of 2010; consequently, these activities have required significant effort and diligence.

PART B – INTRODUCTION

B.1 Introduction to the report

This report describes safety trends in the Italian railway system, which the Italian National Safety Authority ('the Authority') 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 14) and 'Guidelines for the use of the template – structure for the content of the NSA Annual Safety Report' (Version 10), issued by ERA (European Railway Agency) on 25 August 2009, 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
<i>Authority</i>	Italian National Safety Authority
<i>ERA</i>	European Railway Agency
<i>RFI</i>	Rete Ferroviaria Italiana [Italian Railway Network] (Italian national Infrastructure Manager)

Term	Definition
<i>IUR accident</i>	<p>Accidents are classed as ‘IUR’ (International Union of Railways), provided they appear in the statistics of that organisation, if they have had the following consequences:</p> <ol style="list-style-type: none"> 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; 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). <p>IUR accidents do not include incidents on stretches of line blocked to rail traffic.</p>
<i>typical accidents</i>	<p>The following IUR accidents are classified as ‘typical’ by the Italian State Railways:</p> <ul style="list-style-type: none"> ▪ collisions between rolling stock or between rolling stock and obstacles, excluding level-crossing accidents; ▪ derailments (of trains, during shunting or of isolated locomotives); ▪ level-crossing accidents involving collisions between rail and road vehicles at level crossings; ▪ fires on rolling stock in service.
<i>non-typical accidents</i>	<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"> ▪ take part in shunting or coupling of vehicles; ▪ stand or walk on railway premises; ▪ are hit by an obstacle or vehicle while being transported by a railway vehicle; ▪ fall from a railway vehicle in motion; ▪ are run down at a level crossing.
<i>critical area</i>	<p>Area within which action needs to be taken in order to achieve the macro-targets.</p>
<i>macro-target</i>	<p>Desired state of the system to be achieved.</p>

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 (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.

The Infrastructure Manager provided the information relative to its network with a considerable delay with respect to the specified deadline of 30 June 2011. The data updated to 31 December 2010 are shown in Table A.2.

B.2.3 List of Railway Undertakings

The Railway Undertakings holding safety certificates as at 31 December 2010 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 2010 forwarded to this Authority:

- details of the most recent safety certificate issued under Directive 2001/14/EC. It is to be noted that no safety certificates under Directive 2009/49/EC (parts A and B) were issued in 2010, hence the relevant column is omitted from the table;
- the date of commencement of trading;
- the types of service authorised;
- make-up of rolling stock used. It should be noted that only the railway undertaking Trenitalia S.p.A. has freight rolling-stock registered in its own rolling stock;
- 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 slight increase in traffic was recorded in 2010, from 323,254,633 to 323,955,676.

There was, however, a significant increase in the percentage of train-kilometres protected by Train Movement Protection Systems, with an increase from 78% of the total traffic in 2008 to 85.5% in 2009 and to 92.7% in 2010.

The programme to equip rolling stock with train movement protection on-board subsystems continued during 2010. 94% of the drivers' cabs were equipped at the end of 2010, whilst in 2009 it was only 75%.

In order to favour the processes for installation of the train movement protection systems, this Authority, on the one hand, carried out a rapid and binding monitoring of the timing for implementation of the equipping programmes and, on the other hand, issued measures aimed at imposing gradual restrictions on the permitted running of trains which are not equipped, especially in terms of maximum speed limits.

With the Authority's Directive 2/dir/2010 of 9 November 2010, another important step was taken towards completion of the processes, imposing:

- the prohibition of trains on lines with the highest traffic volumes which are not equipped at least with devices designed for the continuous repetition of signals on the train;
- the prohibition of trains carrying dangerous goods which are not equipped with movement protection systems;
- significant restrictions, to mitigate the related risks, for the remaining running of trains not equipped with movement protection systems.

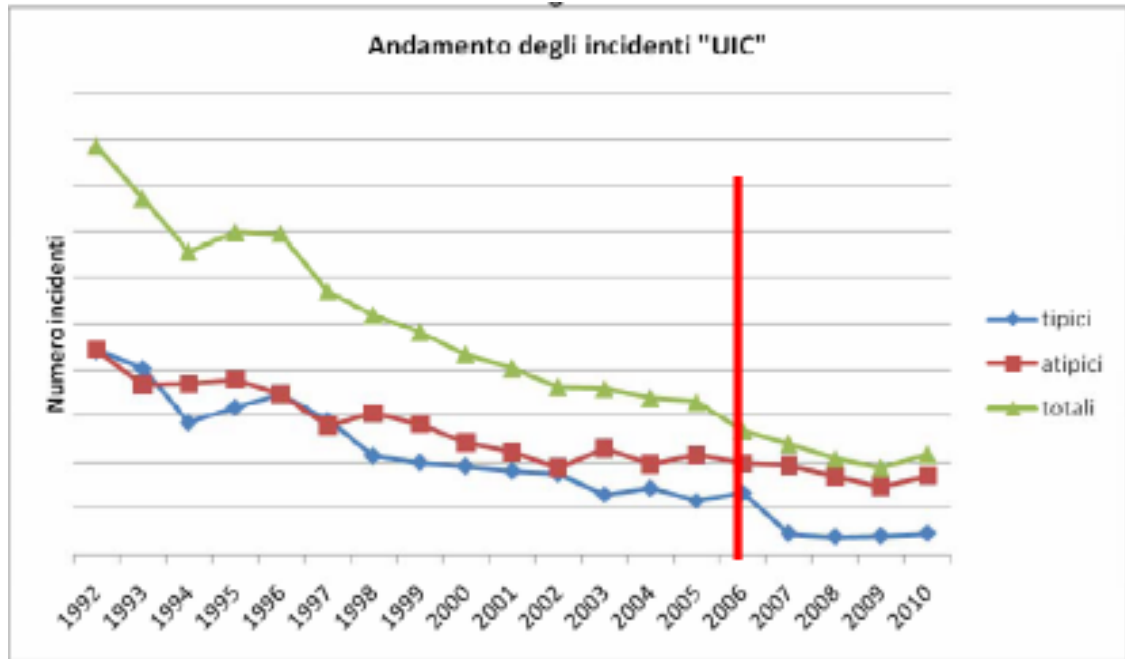
B.3 Summary and analysis of the general trend in railway safety

The safety trend during 2010 shows a number of accidents in line with the period 2006-2009. 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 2010. 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 relating 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 1992-2010. 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 1992-2010'



Andamento degli incidenti 'UIC'	Trend of IUR accidents
tipici	typical
atipici	atypical
totali	total
Numero incidenti	Number of accidents

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. This is demonstrated by the fact that 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 before.

PART C – ORGANISATION

The Authority, established by Legislative Decree No 162 of 10 August 2007, is a non-economic public agency, being independent of the investigation body and the rail operators. It is supervised by the Ministry of Infrastructure and Transport.

The tasks of the Authority, 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 subsystem technologies;
- safety certification of railway operators;
- verification of correct application of rules.

While awaiting the grant of managerial and financial independence to the Authority, the above Decree had provided for a system of 'initial application', through appropriate Agreements between the Ministry of Infrastructure and Transport, the Authority itself and 'Gruppo FS (Ferrovie dello Stato)' [*State Railways Group*] 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 Authority.

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

After the Authority's first operating rules (in the form of a Presidential Decree) concerning the Statute, the organisation and the management of the accounts, referred to in Article 4(6) of Legislative Decree No 162/2007, which were issued during 2009, the end of the current 'initial application' phase referred to above requires the fourth and final regulation (also in the form of a Presidential Decree) on recruitment, which is currently being drawn up.

The organisation of the Authority's activities is divided into an administrative sector and five technical 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 2010, the Authority employed approximately 100 personnel, while the maximum staffing levels with the Authority 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 2010 based on an analysis of accidents and incidents and following other events and factors.

Table D.1.1			
Safety measures arising from an analysis of accidents or incidents			
Date	Location	Description	Safety measures provided
22/11/09	Lecce	SPAD	The interconnected regional railways have been requested to guarantee that trains running on the network operated by the RFI, if only to gain access to the shared stations, comply with the current regulations regarding the driving instruction module on trains not equipped with train movement protection systems, and regarding possession of certifications by personnel and route suitability of the rolling stock.
13/01/10	Viterbo Porta romana	Dangerous collision between train 21946 and train 2261.	The IO (Infrastructure Operators) and the RI (Railway Infrastructures) have been requested to adopt the measures necessary to identify and eliminate the training inadequacies of its personnel. The IO have also been requested to assess the amendment of procedures for maintenance operations with failure in progress.
22/01/10	S. Filippo Neri	Collision with a passenger	The RI have been requested to: <ul style="list-style-type: none"> • check the operation of doors of the same type as those involved in the accident, guaranteeing a better and more careful maintenance; • provide the plan for equipping the doors of the trains in question with the electric type sensitive edge and adopt suitable mitigating measures during the period for implementation of these amendments; • intensify the customer information campaign for appropriate passenger behaviour when boarding and alighting

Table D.1.1			
Safety measures arising from an analysis of accidents or incidents			
Date	Location	Description	Safety measures provided
			from the train; <ul style="list-style-type: none"> • intensify the training of personnel accompanying the trains on aspects regarding the boarding of passengers, subsequent closing of the doors and departure of the train.
17/02/10	Sezze Romano	Structural failure of members of wagon 31553917299.1	The RI have been requested to carry out technical inspections of all flatbed wagons with nameplate MAV and code 55 in the exchange areas in order to reject wagons having abnormal bending of the members.
12/05/10	Brennero	Improper passing of the departure signals towards Austria	The IO have been requested to install trackside systems, at the departure signals towards Austria, which are technologically compatible with the on-board subsystem in use on Austrian locomotives, as well as a system that blocks the Italian locomotives. In a similar manner, the IO must guarantee protection at the station departure signals, in the direction of Italy, which are currently protected by the SCMT [<i>Train Running Control System</i>] system. The IO have also been requested to assess the possibility of modifying the railway signalling system, so that the departure signals towards Austria (located to the right of the track) may be unequivocally identified.
22/05/10			
31/08/10	Trebisacce	Collision with a passenger	All the RI have been requested to guarantee the correct operation of the public address systems inside the trains and to adopt appropriate measures of a technical or organisational nature for trains without door opening controls for each side received on the tracks served by platforms on both sides.
Analysis of the operation of the doors on the ETR150			The RI have been requested to notify the technical and organisational solutions adopted for the trains on which the closing of all the doors is only carried out by using the special control on the driver's desk, as the on-board personnel in this situation should already be inside the train.

Table D.1.2		
Safety measures arising from factors other than accidents or incidents		
Description of area of interest	Description of precursor	Safety measure adopted
IO safety management system	Upgrading of the safety management system to the changed regulatory framework and responsibilities.	Obligations of the IO regarding rail traffic safety and activities necessary for issue of the Safety Authorisation – Directive 1/dir/2010.
Control of risks connected with IO activities	<ul style="list-style-type: none"> - identification of the network's critical points (reconnaissance), such as, for example, connecting tracks, terminals for the handling of dangerous goods, single points subject to hydrogeological risks, etc.; - processes undergoing technical approval of trackside subsystems; - installation of trackside safety subsystems (multi-purpose gantries, dynamic weights, bushing temperature measuring systems, etc.); - measures for mitigating risks connected with the crossing of the track (level crossings); - safety measures in tunnels; - coordination activities in dangerous goods terminals and installation of protective measures; - safety at worksites; - reconnaissance of work vehicles and technical approval; - shunting. 	
RI safety management system	Change in institutional framework following Legislative Decree 162/2007 implementing Directive 2004/49/EC – introduction of the safety certificate A and B and criteria for assessment of the safety management systems.	Guidelines for issue of safety certificate.
	Identification during documentary and field audits of cases of non-compliance in processes described and implemented in the Safety Management System.	Targeted training activities.
Dangerous goods	Problems associated with dangerous goods releases from wagons on trains originating from abroad.	Reinstating checks at the border on wagons carrying dangerous goods originating from abroad.
Shunting	<ul style="list-style-type: none"> - mitigation of risks associated with the failure to control shunting using train movement protection systems (the control is limited to the maximum speed limit); - issuing of new standards concerning converging shunting (referred to in paragraphs 2 and 3 of Article 7(8) of the RCT [<i>Rules for traffic circulation</i>]) so as to mitigate the risk of undesired movement towards the trains; - redefinition of the standards for 	Supplements and amendments to standards governing shunting – Decree 2/2010.

Table D.1.2		
Safety measures arising from factors other than accidents or incidents		
Description of area of interest	Description of precursor	Safety measure adopted
	<p>shunting without shunter to mitigate the risk of incidents due to an inadequate knowledge of the particular details of the system by the person performing the shunting;</p> <ul style="list-style-type: none"> - specific details concerning the definition of shunting by pushing, with the characterising element given by the position of the driver's cab from where the shunting is performed. 	
Technical inspection of the vehicles	<ul style="list-style-type: none"> - Introduction of more restrictive measures on the controls to be carried out on departure of the trains, to increase the safety level of trains carrying dangerous goods. 	Amendment of the regulations for technical inspection of the vehicles, relating to the performance of the complete inspection at origin of trains carrying dangerous goods – Decree 6/2010.
Technical approval and approval for the operation of work vehicles	<ul style="list-style-type: none"> - amendment of the provisions of the circulars and requirements which are inconsistent with the main regulations laid down by RCT; - regulation of the technical approval of work vehicles and their operation in accordance with the regulations governing the operation of trains, or under conditions of interruption. 	Regulations for the technical approval and for the operation of work vehicles (ANSF memo 03845/11) – Decree 15/2010.
Performance of works on the railway infrastructure and protection of worksites	<ul style="list-style-type: none"> - Reduction of possible interference between worksites and safety of train movements, also by suppression of the protection of the worksites only on sightings. 	Reorganisation of the service regulations regulating the conditions for performance of works on the railway infrastructure and the associated monitoring and control activities (ANSF memo 04212/11) – Decree 16/2010.
Operation of trains not equipped with SCMT on-board subsystem and SSC [<i>Drive aid system</i>]	<ul style="list-style-type: none"> - Introduction of further limitations for the mitigation of risks associated with the operation of trains not yet equipped with train movement protection subsystems, - Introduction of appropriate mitigation measures for work vehicles, shunting locomotives and old rolling stock, 	Directive 2/dir/2010 operation of trains not equipped with SCMT on-board subsystem and SSC on lines operated by the RFI.
Training of personnel with safety-related duties	Changed institutional framework arising out of Legislative Decree 162/2007 implementing Directive 2004/49/EC.	Guidelines for accreditation of training centres.

Table D.1.2		
Safety measures arising from factors other than accidents or incidents		
Description of area of interest	Description of precursor	Safety measure adopted
Approval processes during advanced development	Handing over of trackside skills, previously the responsibility of the Infrastructure Manager, to the Authority.	With regard to the authorisation for the service start-up of the RFI infrastructure subsystems and approval of the structural trackside systems used by the RFI S.p.A. and associated with traffic safety protocol of understanding was formalised on 23 September 2010 between this Authority and the national Infrastructure Manager, by which it was agreed that for certain processes for technical approval of trackside products and applications generally relating to products and applications already in service and listed in a specific annex, the RFI S.p.A. will issue the preliminary acceptance certificates and, where still necessary, the relative Approval Certificates.

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 2010 on the infrastructure operated by the RFI.

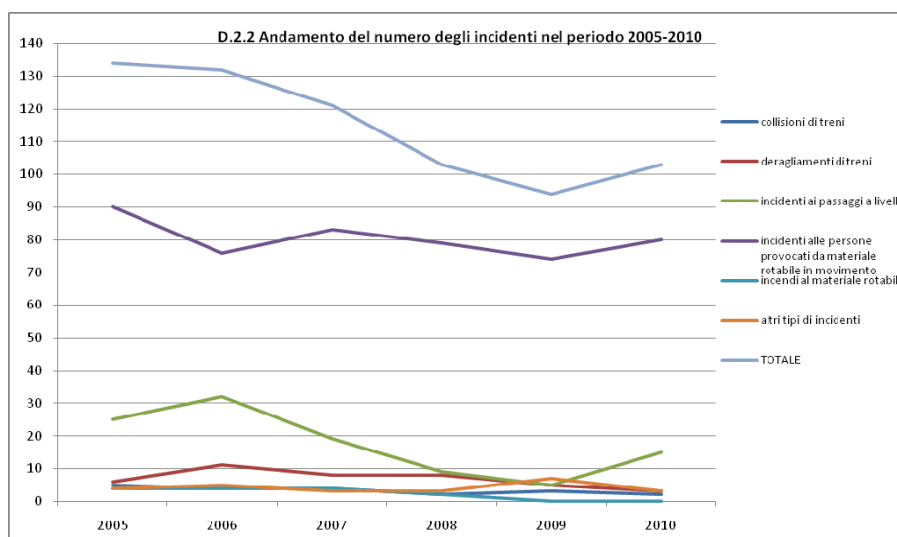
The accidents analysed in this paragraph are listed in Annex C.2.

Table D.2.1 and figure D.2.2. show the number of accidents during the period 2005-2010, in absolute value and in relation to traffic volume (expressed in billions of train-kilometres).

Table D.2.1 Number of accidents over the 2005-2010 period												
ACCIDENTS	2005		2006		2007		2008		2009		2010	
	No	No/ tr.km	No	No/ tr.km	No	No/ tr.km	No	No/ tr.km	No	No/ tr.km	No	No/ tr.km
Train collisions	5	14.77	4	11.56	4	11.67	2	5.89	3	9.29	2	6.17
Trains colliding with obstructions	3	8.86	3	8.67	4	11.67	2	5.89	3	9.29	2	6.17
Collisions between trains	2	5.9	1	2.89	0	0	0	0	0	0	0	0.00
Train derailments	6	17.72	11	31.8	8	23.34	8	23.58	5	15.48	3	9.26
Level-crossing accidents	25	73.85	32	92.51	19	55.44	9	26.53	5	15.48	15	46.30
Accidents to persons caused by rolling stock in motion	90	265.87	76	219.72	83	242.19	79	232.9	74	229.1	80	246.95
Fires on rolling stock	4	11.81	4	11.56	4	11.67	2	5.89	0	0	0	0.00
Other accidents (*)	4	11.81	5	14.45	3	8.75	3	8.84	7	21.67	3	9.26
TOTAL	134	395.85	132	381.62	121	353.07	103	303.65	94	291.02	103	317.94
(*) 'Other accidents' describes all accidents not included in the previous categories, such as derailment and impacts during shunting or of work equipment.												

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 2005-2010.

The data set out in the tables are those officially submitted by the operators in their annual reports under the terms of Article 13(4) of Legislative Decree No 162 of 10 August 2007.



D2.2 Andamento del numero degli incidenti nel periodo 2005-2010	Figure D.2.2 Annual trend in number of accidents during the period 2005-2010
collisions di treni	train collisions
deragliamenti di treni	train derailments
incidenti ai passaggi a livello	Level-crossing accidents
incidenti alle persone provocati da materiale rotabile in movimento	Accidents to persons caused by rolling stock in motion
incendi al materiale rotabile	Accidents to rolling stock
altri tipi di incidenti	Other accidents
TOTALE	TOTAL

There was an increase in the total number of accidents in 2010 compared with 2009, which represents the lowest value for the period examined in terms of number of occurrences. The types of accidents which show an increase are the ‘accidents to persons caused by rolling stock in motion’ and the ‘level-crossing accidents’. Both these types of accidents are particularly influenced by improper behaviour of persons. With regard to the problem of level-crossing accidents, 2010 is the first year registering a reversal in trend compared with a previous three-year period showing a significant drop in the number of occurrences. However, with regard to ‘accidents to persons caused by rolling stock in motion’, a further effort by the system is deemed necessary to reduce this phenomenon.

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 2005-2010. 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 aggregate value of persons injured or killed with regard to a single 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). The types of accidents that have not caused damage to persons (death or severe injury) have been removed from every figure, such as the level-crossing accidents in figure D.2.3.

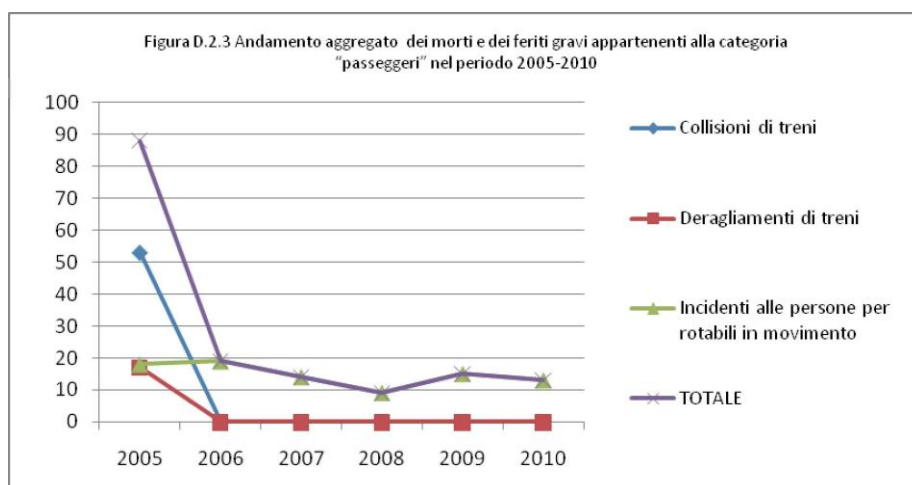


Figura D.2.3. Andamento aggregato dei morti e dei feriti gravi appartenenti alla categoria 'passenger' nel periodo 2005-2010	Figure D.2.3 Aggregate trend in fatalities and serious injuries in the 'passenger' category during the period 2005-2010
Collisions di treni	Train collisions
Deragliamenti di treni	Train derailments
Incidenti alle persone per rotabili in movimento	Accidents to persons caused by rolling stock in motion
TOTALE	TOTAL

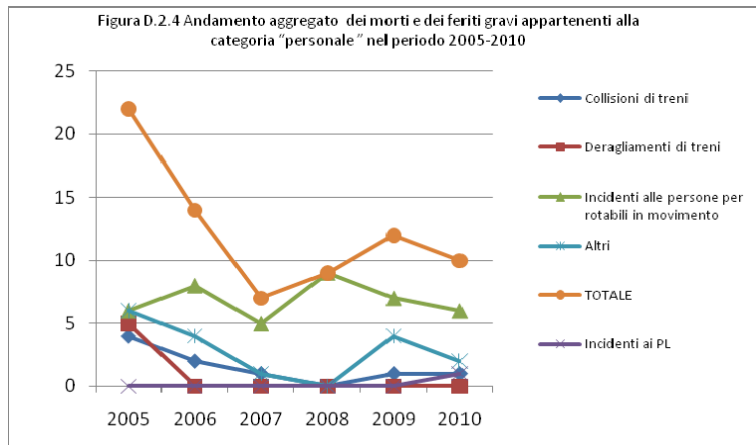


Figura D.2.4. Andamento aggregato dei morti e dei feriti gravi appartenenti alla categoria 'personale' nel periodo 2005-2010	Figure D.2.4 Aggregate trend in fatalities and serious injuries in the 'staff' category during the period 2005-2010
Collisionsi di treni	Train collisions
Deragliamenti di treni	Train derailments
Incidenti alle persone per rotabili in movimento	Accidents to persons caused by rolling stock in motion
Altri	Others
TOTALE	TOTAL
Incidenti ai PL	Level-crossing accidents

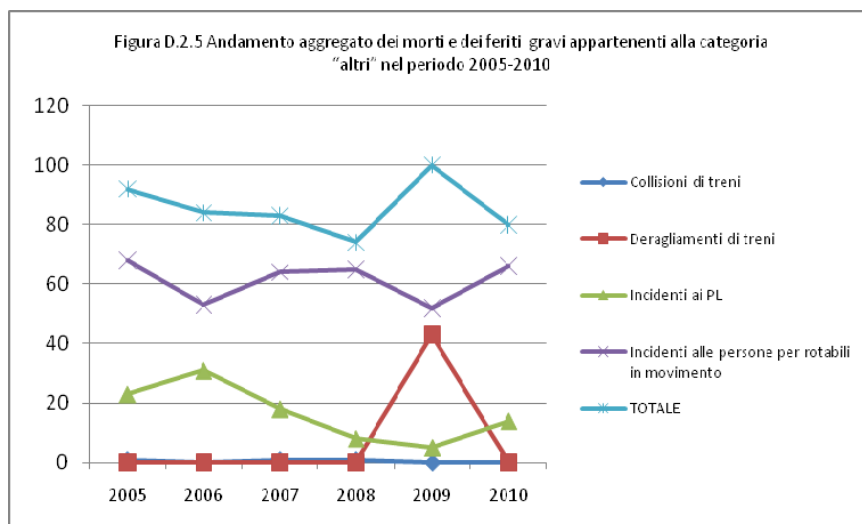


Figura D.2.5. Andamento aggregato dei morti e dei feriti gravi appartenenti alla categoria 'altri' nel periodo 2005-2010	Figure D.2.5 Aggregate trend in fatalities and serious injuries in the 'other' category during the period 2005-2010
Collisionsi di treni	Train collisions
Deragliamenti di treni	Train derailments
Incidenti ai PL	Level-crossing accidents
Incidenti alle persone per rotabili in movimento	Accidents to persons caused by rolling stock in motion
TOTALE	TOTAL

Figure D.2.3 shows that no derailments or collisions causing death or injury to passengers have been recorded since 2005. Since 2006, the overall data for victims

amongst passengers coincide with the accidents to people caused by rolling stock in motion. Essentially such accidents occur while boarding or alighting from the doors of moving trains. The 2010 values fell compared with the previous year. Figure D.2.4 relating to personnel (railway personnel, including companies) shows that the overall level of accidents decreased compared to 2009 but they are still in line with 2008 values. The latest train derailments or fires that are relevant for purposes of the graph were registered as occurring in 2005. All types of accidents register lower values than the previous year with the exception of level-crossing accidents which show the first serious injury in the period in question.

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 2009/149/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 decrease compared to 2009, with a fall since the Viareggio rail disaster. However, there is an increase in the victims of 'accidents to persons caused by rolling stock in motion' and 'level-crossing accidents'. 2010 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 2006-2010. 2010 values higher than those of 2009 are highlighted in red.

	2006											2007												
	Passengers			STAFF			Outside persons			Total			Passengers			STAFF			Outside 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	Serious injuries	TOTALS
Train collisions	0	0	0	2	0	2	0	0	0	2	0	2	0	0	0	0	1	1	1	0	1	1	1	2
Train derailments	0	0	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	0	0	18	13	31	18	13	31	0	0	0	0	0	0	15	3	18	15	3	18
Accidents to persons caused by rolling stock in motion	5	14	19	6	2	8	38	15	53	49	31	80	5	9	14	2	3	5	43	21	64	50	33	83
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	0	0
Others	0	0	0	2	2	4	0	0	0	2	2	4	0	0	0	0	1	1	0	0	0	0	1	1
TOTAL	5	14	19	10	4	14	56	28	84	71	46	117	5	9	14	2	5	7	59	24	83	66	38	104
	2008											2009												
	Passengers			STAFF			Outside persons			Total			Passengers			STAFF			Outside 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	Serious injuries	TOTALS
Train collisions	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1
Train derailments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	13	43	30	13	43
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	0	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	29	74
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	0	0
Others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	4	4
TOTAL	4	5	9	5	4	9	51	23	74	60	32	92	5	10	15	5	7	12	71	29	100	81	46	127

2010

	Passengers			STAFF			Other persons			Total		
	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS	Fatalities	Serious injuries	TOTALS
Train collisions	0	0	0	0	1	1	0	0	0	0	1	1
Train derailments	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
Accidents to persons caused by rolling stock in motion	7	6	13	5	1	6	48	18	66	60	25	85
Fires on rolling stock	0	0	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	2	2	0	0	0	0	2	2
TOTAL	7	6	13	5	5	10	59	21	80	71	32	103

With regard to SPADs (Signals passed at danger) the following graph shows the instances that occurred over the period 2000-2010.

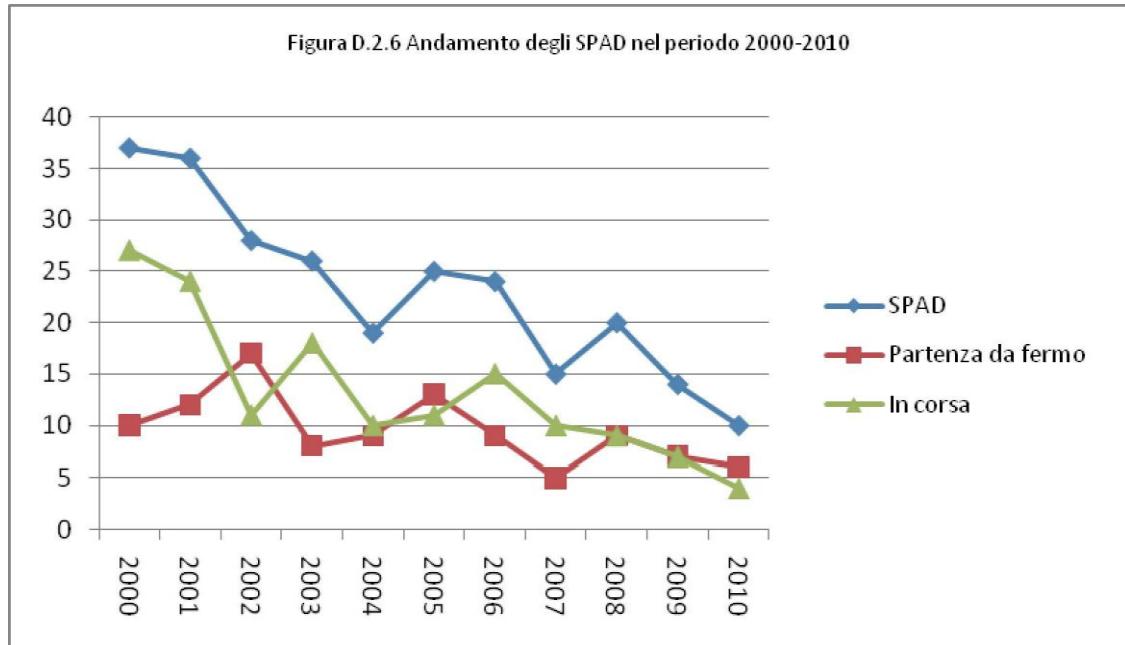


Figura D.2.6. Andamento degli SPAD nel periodo 2000-2010	Figure D.2.6 Trend in SPADs during the period 2000-2010
SPAD	SPAD
Partenza da fermo	From standing start
In corsa	In course

An analysis of the graph reveals that there was a further decrease in occurrences in 2010 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. The result was achieved through efforts by the system as a whole to equip the national railway network and railway traffic on the network with train driving protection systems and also through the attention devoted to personnel training.

During 2010, there were again no major accidents resulting from improper passing of a stop sign by a train.

On the basis of analyses carried out on the SPAD issue, these have been divided into two categories, namely, those occurring on 'departure from standing start' and 'in course of travel'. SPADs on 'departure from standing start' are chiefly a function of the interrelation between train drivers and personnel accompanying the trains. 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, represent a greater cause for concern.

During 2010 the level of both 'in course of travel' and 'departure from standing start' SPADs fell compared to previous years.

The monitoring of non-compliances which affect the transport of dangerous goods, and in particular the release of dangerous goods, continued during 2010. This relates mainly to small releases of substances associated with loading problems or container structural defects. Figure D.2.7 shows that 2010 is the first year that registers lower values than the previous year. The value shows the effectiveness of the measures adopted.

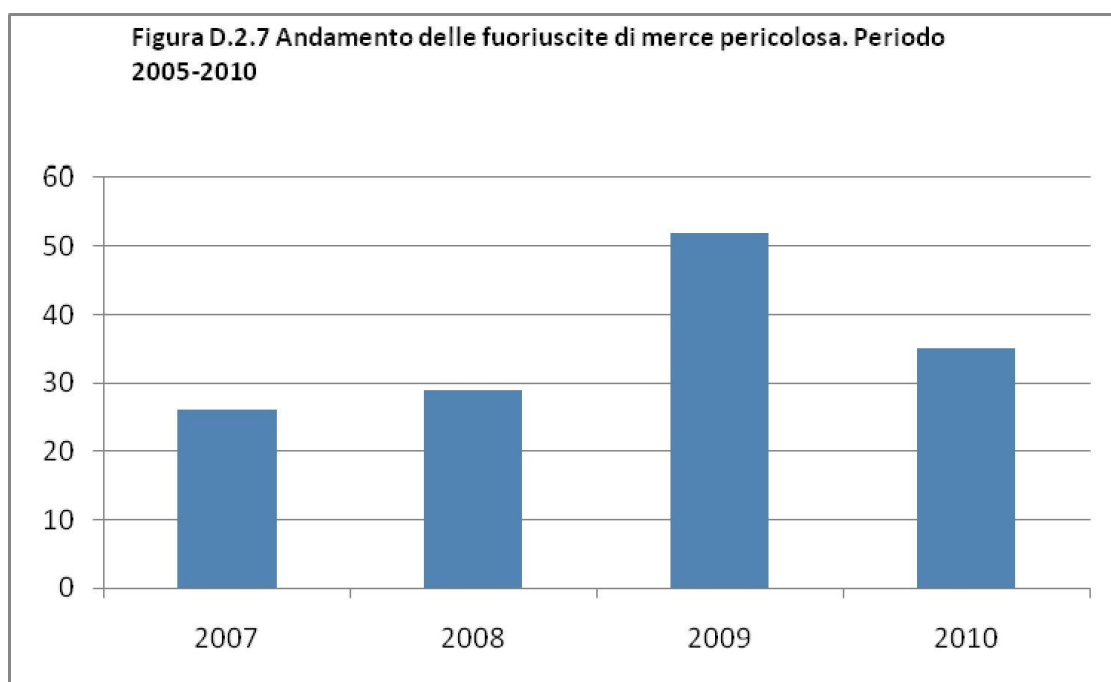


Figura D.2.7. Andamento delle fuoriuscite di merce pericolosa. Periodo 2005-2010

Figure D.2.7 Trend of the release of dangerous goods. Period 2005-2010

D.3 Results of the recommendations of the Investigation Body

The provisions adopted by the Authority after analysing the various incidents are in line with the recommendations drawn up by the Italian National Investigation Body. See point D.1 for a summary of the main measures adopted.

PART E – IMPORTANT CHANGES IN LEGISLATION AND REGULATION

The main changes made to the reference framework for the safety of train movements and of rail operations in 2010 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 in the section 'Rules on safety and interoperability' and on www.rfi.it in the section 'Regulatory framework'.

Note the following with regard to national standards:

- ✓ Legislative Decree No 15 of 25 January 2010 on 'Implementation of Directive 2007/58/EC, which amends Directives 1991/440/EEC on the development of the Community's railways and 2001/14/EC on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure';
- ✓ Legislative Decree No 35 of 27 January 2010 on 'Implementation of Directive 2008/68/EC on the inland transport of dangerous goods';
- ✓ Law No 152 of 13 August 2010 on 'Amendments to Article 4 of Legislative Decree No 162 of 10 August 2007 aimed at guaranteeing the operation of the Italian National Safety Authority';
- ✓ Legislative Decree No 191 of 8 October 2010 on 'Implementation of Directives 2008/57/EC and 2009/131/EC on the interoperability of the rail system within the Community for implementation of Directives 2008/57/EC and 2009/131/EC on the interoperability of the rail system within the Community';
- ✓ Legislative Decree No 264 of 23 December 2010 on 'Implementation of Directive 2005/47/EC of 18 July 2005, concerning the agreement between the Community of European Railways (CER) and the European Transport Workers' Federation (ETF) on certain aspects of the working conditions of mobile workers engaged in interoperable cross-border services in the railway sector';
- ✓ Legislative Decree No 247 of 30 December 2010 on 'Implementation of Directive 2007/59/EC on the certification of train drivers operating locomotives and trains on the railway system in the Community'.

- ✓ Ministerial Decree of the Ministry of Infrastructure and Transport of 29 December 2010 on 'Implementation of Article 11 of Legislative Decree No 35 of 27 December 2010 concerning the implementation of Directive 2008/68/EC on the inland transport of dangerous goods';
- ✓ Decree of the Ministry of Infrastructure and Transport No 0000813 of 29 October 2010 deferring the application of the regulations under Article 27(4) of Legislative Decree No 162 of 10 August 2007 to the regional rail networks for which systems have not been completed for ensuring that the technological levels of the regional networks are rendered homogeneous with those of the national railway infrastructure;
- ✓ Decree of the Ministry of Infrastructure and Transport of 10 September 2010 implementing Directive 2009/149/EC amending Directive 2004/49/EC as regards Common Safety Indicators and common methods to calculate accident costs;
- ✓ Circular of the Ministry of Infrastructure and Transport No 0030048 of 6 April 2010 aimed at reinforcing safety management for the transport by train of dangerous goods in tanker wagons.

With regard to national regulatory activity on safety, performed by the Authority, work was completed on analysing the measures in force relating to the railway traffic service regulations, issued by the Infrastructure Manager RFI and Gruppo FS up to 15 June 2008 (Standards, provisions, specifications and regulatory circulars). The reference framework, set out in Annex B of the Decree of the Authority No 1/2009 of 6 April 2009, which ensures the existing regulations are fully aligned with the previous framework, has been revised and updated by Authority Decree No 8/2010 of 12 July 2010. The Authority has continued activities, begun in 2009, of reorganisation of the area and division of the competences of railways operators under the terms of Article 6(2)(a) of Legislative Decree 162/2007, with the aim of drafting a Consolidation Act on railway operating regulations, including the fundamental principles to be defined by the Authority. This reorganisation is currently in progress. In the course of 2010 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 interested parties (RFI, RI, sector associations and trade union organisations) for an opinion:
 - o No 1/2010 of 3 February 2010 'Determination of the amounts due from the Railway Undertakings for the Safety Certifications referred to in Article 14 of Legislative Decree No 162/2007',
 - o No 2/2010 of 24 February 2010 (supplements and amendments to standards governing shunting);
 - o No 3/2010 of 24 February 2010 (conditions for approval for combined rail transport of containers and intermodal loading units and relative attribution of responsibilities at national level) (ANSF – CEMAT Convention);
 - o No 4/2010 of 10 May 2010 'Amendments to the General Introduction to the Service Schedule and to the Instruction for the Shunters' Service concerning the notification of changes to the technical-operational characteristics of the railway infrastructure and the numbering of trains'. - Entry into force postponed to 12/12/2010;
 - o No 5/2010 of 25 May 2010 'Amendments to the Instruction for the driving crew of the locomotives and to the Instruction for the service of train on-board personnel concerning the regulations for access to the rolling stock driver's cab';
 - o No 6/2010 of 12 July 2010 'Amendment of the regulations for the technical checking of the vehicles, relating to the performance of the complete inspection at the origin of the trains carrying dangerous goods';
 - o No 7/2010 of 12 July 2010 'Experimental standards for notification of the movement requirements with verbal communications recorded on certain line stretches and for certain services'. (ANSF memo 6005/10),
 - o No 8/2010 of 12 July 2010 'Updating of Decree No 1/2009 of 6 April 2009 concerning the revision of Annex B to take into account the regulatory circulars already cancelled at the date of issue of Decree No 1/2009';
 - o No 9/2010 of 26 July 2010 'Accreditation as Independent Safety Inspector of Symacontech S.p.A.';

- No 10/2010 of 27 July 2010 'Transport of dangerous goods: removal from the Regulatory Texts of standards contained in the current legislation';
- No 11/2010 of 11 November 2010 'Amendments to service regulations for the adoption of limitations laid down by Directive 2/dir/2010 of 9 November 2010';
- No 12/2010 of 16 November 2010 'Accreditation as Independent Safety Inspector of Rina Services S.p.A.';
- No 13/2010 of 19 November 2010 'Amendments to order of the RFI No 31 of 25 October 2002 'Shunting keys in the PdS's of the lines operated with SCC';
- No 15/2010 of 13 December 2010 'Regulatory reorganisation'. Regulations for technical approval and for operation of work vehicles (ANSF memo 03845/11);
- No 16/2010 of 22 December 2010 'Reorganisation of the service regulations governing the conditions for performance of the works on the railway infrastructure and the relative monitoring and control activities (ANSF memo 04212/11);
- issuing of the Directives:
 - No 1/dir/2010 of 23 February 2010 (Directive on the requirements to be satisfied by the Infrastructure Manager RFI relating to rail traffic safety and activities necessary for issue of the safety Authorisation);
 - No 2/dir/2010 of 9 November 2010 (Operation of trains not equipped with SCMT on-board subsystem and SSC on lines operated by the RFI);
- drafting of draft decrees on the following subjects and sending them to those involved (RFI, RI, sector associations and trades union organisations) for an opinion:
 - application procedures and amendments to the regulations resulting from the issue of Authority Decree 9/2009 of 15 September 2009;
 - regulations for qualification of the Head of the Safety Management System of a railway undertaking or an infrastructure manager;

- issue of the Guidelines for accreditation of Training Centres;
- issue of the Guidelines for issue of the safety certificate;
- updating the Guidelines for drawing up the annual safety report;
- issue of guidelines and recommendations to the Infrastructure Manager RFI and the Railway Undertakings regarding:
 - sanitary requirements for ‘shunting control’ by personnel used in activities for crewing trains or manning transfer trains;
 - measures to be adopted for non-destructive testing;
 - requirement for knowledge of the line and systems required to maintain the safety certificate;
 - hire of rolling stock;
 - traceability of axles and leaf springs and maintenance of trapezoidal leaf springs;
 - procedure for cancellation of railway vehicles from the national registration system – clarification.

PART F – DEVELOPMENT OF SAFETY CERTIFICATION AND SAFETY AUTHORISATION

F.1 National legislation – Commencement dates – Availability

No safety certificates or Safety Authorisations have been issued up to 31 December 2010 pursuant to Articles 10 and 11 of Directive 2004/49/EC, as incorporated by Legislative Decree No 162 of 10 August 2007. However, at 31 December 2010, all the railway undertakings holding a safety certificate have presented a formal request for updating in accordance with the above-mentioned Directive, in compliance with the requirements of Regulation 653/2007.

For aspects relating to the Safety Certification of the Railway Undertakings, the Authority issued ‘Guidelines for the issue of a safety certificate’ on 23 March 2010. These guidelines provide the information necessary for obtaining parts A and B of the certificate, specifying the requirements to be satisfied and the documentation to be submitted as evidence.

The guidelines also established 30 June 2010 as the final deadline for applications to

extend the safety certificate under the procedures prior to those contained in Directive 2004/49/EC.

In any case, already during 2010, even though safety certificates and extensions to Safety certificates were issued using the procedures prior to those provided for by Directive 2004/49/EC, the Safety Management Systems of the Railway Undertakings were assessed to provide the undertakings with guidance for the implementation of systems in compliance with the requirements for parts A and B of the certificates. These activities included bilateral meetings between the Authority and the Railway Undertakings during which the Safety Management Systems documents were analysed to ensure that the undertakings understood the non-compliances identified.

With the aim of supporting the Railway Undertakings in the implementation of the new rules, during June 2010 the Authority met all the Railway Undertakings holding a safety certificate or which had applied to obtain a safety certificate, or in some cases associations representing them, explaining the main new features of the new regulatory framework and the most sensitive Safety Management System issues emerging from the supervision activity carried out by the Authority.

A Framework Agreement for study and research activities relating to railway safety was activated in 2010 between the Italian National Safety Authority and the Hydraulics, Transport and Roads Department of Rome University '*La Sapienza*', with the aim of assessing the correct application of the guidelines issued and the documentary assessment procedures adopted, with regard to EU Regulation No 1158/2010 of 9 December 2010 concerning a common safety method for assessing compliance with the requirements for obtaining railway network safety certificates.

With regard to the Safety Authorisation to be issued to Infrastructure Managers, the Authority assumed the relevant powers in relation to the RFI national Infrastructure Manager as of 1 January 2010. As a consequence of taking over these powers, Authority Directive 1/dir/2010 issued on 22 February 2010 defines all the formalities to be carried out by the RFI prior to the issue of the Safety Authorisation.

With regard to the other networks in Italy, the application of Legislative Decree No 162 of 10 August 2007 was postponed for three years as laid down in Article 27 of the Decree itself. By subsequent Ministerial Decree No 0000813 of 29 October 2010, the Ministry of Infrastructure and Transport further postponed the application of Article 27

of the above-mentioned Legislative Decree until completion of the technology of the interconnected regional networks with systems suitable to protect train movements so as to make the technological levels of the regional networks homogeneous with those of the national network.

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

The position regarding the issue of Safety certificates to the Railway Undertakings up to 31 December 2010 is set out below.

By that date there were 26 Railway Undertakings certificated on the national railway infrastructure (including Ferrovie dello Stato S.p.A. CdS 1/2000).

In the course of 2010 the following were issued:

- new safety certificate:
 - No 54/2010 issued on 10 May 2010 to TK Logistik AG;
- 31 extensions to existing safety certificates

In the course of 2010 the following safety certificates were revoked:

- No 81/2006 from DB Schenker Rail Italia S.r.l. (formerly Railion Italia S.r.l.) on 4 August 2010 for freight services;
- No 33/2002 from Veolia Cargo Italia S.r.l. on 14 December 2010 for freight services.

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

F.3 Procedural aspects

Since the procedures for issue of parts A and B of the safety certificates were begun at the end of December 2010 for almost all the Railway Undertakings, still no procedural elements have emerged up to 31 December 2010, to be entered in this paragraph.

The procedures for issue of the Safety Authorisations for the Infrastructure Managers in 2010 had not yet been undertaken at 31 December 2010.

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 Authority performed its activities of supervising the Railway Undertakings and the national Infrastructure Manager through:

- monitoring and analysing accident data;
- performance of targeted checks on the events considered most significant from the viewpoint of 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 the RFI (assessment of compliance of operating processes implemented);
- evaluation and analysis of annual reports sent by the RFI and the Railway Undertakings;
- analysis of the results of all the Authority's activities vis-à-vis the RFI and the Railway Undertakings.

As stated previously, in 2010 safety certificates were issued in accordance with procedures laid down in Directive 49/2004/EC. In other words, parts A and B safety certificates and Safety Authorisations were not issued.

Consequently, this chapter does not mention claims from the Infrastructure Managers against the Railway Undertakings regarding the conditions in parts A and B of the

certificate. Similarly, no claims were reported as being presented by the Railway Undertakings against Infrastructure Managers concerning the authorisation conditions.

G.1.1 Monitoring and analysing accident data

Accidents, incidents, the causes that gave rise to them and the associated consequences are monitored daily through information sent to the Authority by the Infrastructure Manager and the Railway Undertakings or downloadable from databases pursuant to Article 5(3) of Decree No 1 of 2009 of the Director of the Italian National Safety Authority.

In particular, by monitoring the RFI Safety Database containing all accidents and incidents occurring on the railway infrastructure managed by the RFI, the Authority audits the trend in accidents, incidents and their consequences, comparing them with previous periods in order to examine the effect and highlight any rising accident trends or establish event hotspots within the same time period or location.

The trend of the accident data and the comparison with previous years are illustrated in point B.3 above.

The measures adopted following the analysis of the accident data for the most significant events are described in point D.3 above.

G.1.2 Investigations by the Italian National Safety Authority

On the basis of information in its possession relating to events occurring, the Italian National Safety Authority decides whether to gather further information from the railway operators involved or to carry out its own investigations to acquire data in good time, for the purpose of identifying the causes of what has taken place, in order to adopt any immediate rules or technical measures that might help prevent a repetition of such events.

In any case, the Authority may access the investigations conducted by the Infrastructure Manager and by the Railway Undertakings, after they have been completed, to obtain any evaluative element that may serve the purposes of the Authority.

The observations emerging from the information collected by the Authority are sent to the relevant railway operators to support the relevant assessments and to request the adoption of measures that the Authority deems appropriate. The Authority asks railway

operators involved to include information on measures adopted following incidents occurring and reported in their annual safety report.

During 2010, the Authority collected information on 162 occurrences, mainly reports of release of hazardous goods, derailments, SPADs, falling passengers and impacts.

The details of the measures adopted following the activity carried out are given in paragraphs D.1 and D.3.

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

In order to harmonise the data and information provided by the Railway Undertakings and the Infrastructure Manager and to guarantee the homogeneous nature of the criteria for measurement and assessment of the safety management systems, as well as to guide the railway operators in preparing the annual safety reports, the Authority issued 'Guidelines for drawing up the annual safety report' on 17 June 2009. By these Guidelines, the Authority – in addition to the matters set out in Article 13(d) of Legislative Decree No 162 of 10 August 2007 – introduced various items of specific concern to itself. With a view to facilitating the preparation of the report and the calculation of indicators, the Authority has added a requirement to compile certain specific tables.

Following the issue of the Decree of the Ministry of Infrastructure and Transport of 10 September 2010, incorporating Directive 2009/149/EC, the Authority issued an update of the 'Guidelines for drawing up the annual safety report' on 1 June 2011 whereby:

- the tables by which the operators provide their own data have been modified, inserting detailed elements, deleting certain superseded items and introducing the names of the indicators in line with those defined by the above-mentioned Decree of 10 September 2011;
- the point of the report relating to the CSIs and the national safety indicators has been modified to take into account the changes made to the tables.

All the railway operators were asked to prepare an annual report for the year 2010 in accordance with this revision of the Guidelines. 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 operators	Railway operators who submitted their reports by 30 June	Railway operators who submitted their reports after 30 June	Railway operators who did not submit a report
32	22	9	1

Included amongst the 9 railway operators which submitted their annual reports late is the national Infrastructure Manager RFI – which sent in the data on 16 September 2011. This delay in submitting the information requested from the Manager has not enabled the data supplied to be checked, and has not enabled assessment of the interface aspects or of its own aspects associated with the manager's activities.

The operator who failed to submit the information is a railway undertaking carrying out transport services for freight and dangerous goods.

The examination of the documents submitted by the operators has revealed the following.

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 2010 by the Authority. Only in a few cases have the organisations submitting the safety plans defined additional critical areas for themselves.

With regard to the indicators used to identify and measure critical areas, although in many cases they adequately define the process involved, in other cases more general and less effective parameters were employed.

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.

The coverage of the key safety aspects within individual plans, and statements of the implementation status of projects and activities planned in 2009, as well as the reasons for any deviation from plan, were, by and large, supplied in accordance with the guidelines issued.

National safety indicators and Common Safety Indicators (CSI)

The safety indicators introduced by Order 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.

In some cases, the method of calculating the indicators was not explained, although this was a specific requirement of the Authority guidelines when drawing up the annual tables. This made it difficult to analyse and compare values, particularly those relating to sampling.

The results revealed the following picture:

- Although the indicators supplied by most railway operators displayed a certain lack of homogeneity and an element of incompleteness, they show that the safety performance levels must be improved in the following respects:
 - number of 'slight' non-typical accidents;
 - number of shunting accidents;
 - number of accidents associated with maintenance of the track or the presence of worksites;
 - number of accidents associated with hydrogeological disturbance;
 - non-compliance of traction rolling stock;
 - non-compliance of the behaviour of train drivers;
 - improper passing of fixed signals and exceeding maximum speed;
 - number of incidents or 'near incidents'.

With regard to the collection of data necessary to construct common safety indicators, it should be noted that the greatest difficulty concerns the correct interpretation of the data, with particular reference to data relating to productivity and the provision of services.

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 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 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.

G.3 Inspections carried out in 2010

The inspection activities carried out by the Infrastructure Manager have focused on:

- railway tunnels,
- condition of the track equipment, with special attention paid to checking the points and their characteristic levels compared with the parameters permitted by the current regulations,
- shunting activities.

6 inspections were carried out during 2010 in which 15 tunnels were checked. It emerged from the inspections that General Emergency Plans had only been prepared in 5 cases.

45 systems of the Infrastructure Manager have been inspected, for a total of 359 point switches. The checks were found to be non-compliant in 7.5% of cases on the switch blades and in 6.5% of cases for the characteristic levels.

The main non-compliances emerging from the inspection of the infrastructure relate to:

- management of the infrastructure condition and compliance with the program of maintenance and monitoring activities;
- management of systems, interfacing between technological and maintenance technicians, application of technical regulations and construction standards;
- performance of maintenance and completion of relative forms.

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 dangerous goods. The inspection activities were performed at goods terminals, stations, workshops and combined traffic terminals, and involved 13 Railway Undertakings.

Attention was paid in particular to rolling stock safety devices, but data was also collected regarding inspection personnel operations, management of personnel and work provisions.

228 inspections were performed, for a total of 2257 checks, of which 397 were carried out on wagons carrying dangerous goods.

Approximately 17% of non-compliances, in particular in relation to the traction material, emerged from the controls.

The main cases of non-compliance emerging from checks on rolling stock relate to out-of-service or faulty exit doors, to the condition of the running gear and the equipment for the braking systems.

With regard to the inspection activities on shunting operations, 40 inspections were performed, both of the Infrastructure Manager in the terminals in which it provides the shunting service, and of the Railway Undertakings.

The main non-compliances emerging from checks on shunting systems are as follows:

- lack of signature to indicate inspection of service logs;
- delivery log not completed/incorrectly completed;
- no personnel refresher courses;
- failure to use/incorrect use of scotch blocks to immobilise parked rolling stock;
- incorrect procedure for carrying out shunting movements;
- failure to allocate personnel to instructors for skills training.

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.

G.4 Audits conducted in 2010

Field audits were carried out in accordance with the '2010 audit plan' policy paper, which laid down topics for further examination based on the findings from thorough accident analysis, the outcome of previous audit activities, the assessment of various sectors of the Authority and the conclusions of technical panels.

With regard to audits of Safety Management System documents, during 2010 assessments were carried out with the aim of issuing new safety certificates and extending existing safety certificates. Visits were made to the premises of undertakings. Assessment of the Safety Management Systems has also begun, following requests to renew the safety certificate in accordance with EC Regulation No 653/2007.

During 2010, 65 audits were accomplished in all, as follows:

- 2 at central facilities of the Infrastructure Manager;
- 10 at territorial facilities of the Infrastructure Manager;
- 16 at the undertaking Trenitalia, relating particularly to the maintenance of exit doors and the safety management system;
- 37 of other Railway Undertakings.
 - 28 at their management and operational headquarters;
 - 9 on the safety management system documentation.

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.

Critical issues concerning the Infrastructure Manager relate to the following:

- technical documentation for activation of new plants;
- adoption of maintenance measures following notifications;
- compliance with the program of internal audit activities;
- internal organisational interfaces.

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

- definition of all the processes regarding the specific part of the system
- risk analysis and assessment;
- design of the service;
- management of suppliers and service supplies;
- internal audit activities and management review;
- compliance with rolling stock servicing deadlines.

Findings emerging from an analysis of the documentation making up the Safety Management System led in some cases to failure to issue a safety certificate or a request to update the certificate because the system did not provide a guarantee of safe management of operations. In some cases, new safety certificates were issued or existing certificates were extended on the condition that any aspects emerging as not fully compliant with regulatory requirements in force would be improved.

G.5 Follow-ups by the Authority of aspects identified during supervision activities

An analysis of aspects emerging during supervision activities carried out on operators during 2010 led to the identification of the following critical areas:

- Safety management systems:
 - adoption of procedures for ‘Planning and appraisal of safety through safety analysis and assessment’ to clearly define the methods, tools and techniques adopted for the dimensional and operational definition of the service and the relative changes;
 - systematic and efficient control of the operating safety risks in terms of prevention and protection in the relevant part of the railway system and at the interfaces with other operators;
 - inclusion in the safety management systems of activities performed by third parties associated with operating safety, following an adequate assessment of the safety performance levels to be guaranteed during preparation and provision of the service (by means of risk analysis activities, with attribution of responsibilities, monitoring of standards, supervision of the quality of activities entrusted);
 - constant and effective checking of maintenance operating procedures conducted by relevant bodies for the purposes of safety, in particular those outsourced to third parties (and the contractual features regulating them) and their implications for the regularity and safety of the railway operations.
- Adoption of specific projects which ensure safety at active worksites where rail traffic is present;
- Adoption of measures for mitigating instances of hydrogeological disturbance interfering with traffic safety;
- Correct implementation of processes for starting up new systems and modifying existing systems;
- Mitigation of the risks associated with the crossing of railway premises at level crossings and at critical points for improper crossing by non-service personnel;
- Completion of the equipping of rolling stock with train movement protection systems and implementation of the current systems with functions which

impact positively on safety, with priority given to operating situations not yet protected;

- Progressive installation of train movement protection systems on rolling stock operating in worksites or used for shunting;
- Reorganisation of the registration of work vehicles;
- Implementation of independence between shunt switching and routing of trains;
- Review of the organisation of the Railway Undertakings to ensure better management of maintenance processes;
- Guarantee of the traceability of rolling stock maintenance procedures;
- Mitigation of the risks associated with boarding and alighting of passengers through the train doors, through information campaigns and by adopting technical solutions;
- Reinforcing the supervision of processes involving the transport of dangerous goods, including specific monitoring activities and measures of an organisational and training nature.

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.

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 Authority 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 EU Regulation No 352/2009 in the course of 2010 were supplied by the Railway Undertaking Trenitalia and by the Infrastructure Manager.

Trenitalia applied the regulation voluntarily to the following 4 operational amendments:

- amendments to training paths;
- activation of a new service;
- extension of the driving module with a single driver to the driver's cab of other types of rolling stock with respect to those in which it is already in use;
- suppression of an operating branch.

In all cases the process was applied as described in a specific procedure of the railway undertaking within its own Safety Management System.

This led to the identification of a series of associated dangerous events, for each of which the mitigation measures deemed appropriate to keep the risk within acceptable limits have been identified.

The undertaking submitted a demonstration of compliance of the system with safety requirements within which the mitigation measures identified were considered appropriate to contain the risk within acceptable limits, as being compliant with codes of good practice or regulated by similar reference systems.

With regard to the application of the common safety method, the RFI has reported that:

- the development or modification of electronic safety systems and products for railway signalling have undergone structured risk analysis as laid down in Regulation 352/2009, amending the procedures aimed at the issue of the service start-up authorisation in conformity with the CENELEC standards for the sector. More specifically, the process was completed for the modifications proposed to the general applications relating to the Computer Based Interlocking System (ACC) at Melegnano, ACC Naples Gianturco and ACCM [*Multi-station Computer Based Interlocking System*] at Bologna Bivi di Cintura. For the proposed change to the use of commercial type LCD monitors as Mimic Panels for Vital Functions (QLV) for signalling equipment, the assessment report was prepared by the appointed VIS [*Independent Safety Auditors*];
- within the context of the technical-legislative proposals, the risk management process has concerned the amendment and extension of the management of requirements for movement of the trains using Recorded Verbal Communications and the amendment and extension of the application conditions regarding the management of the Shunting Zones

within the SCC. Both these amendment proposals have been classified as non-significant in the safety report issued.

PART I – CONCLUSIONS, PRIORITIES AND SAFETY RECOMMENDATIONS

The activities conducted in 2010 involved not only the verification of the effectiveness and the repercussions for the system of the measures adopted following the Viareggio railway disaster in 2009, but also the acquisition by the Authority of the responsibilities for the RFI network.

Management decree No 5035 of the Director of the Directorate General for Rail Transport of the Ministry of Infrastructure and Transport was issued on 29 December 2009 ratifying Minute No 2 of 22 December 2009, which transferred to the Authority, operationally as of 1 January 2010, the powers for traffic safety that were previously the responsibility of the Infrastructure Manager (RFI), and specifically:

- authorisation for the service start-up of the RFI infrastructure subsystems;
- approval of structural trackside systems used by the RFI and associated with traffic safety;
- validation of safety management systems and maintenance systems for which the RFI is responsible;
- issue, renewal, maintenance and revocation of the RFI Safety Authorisation;
- inspection, audit and monitoring of the RFI activities.

The first act following the acquisition of the responsibilities by the Authority was the issue, on 22 February 2010, of Directive 1/dir/2010 'Requirements to be satisfied by the Infrastructure Manager RFI relating to rail traffic safety necessary for issue of the Safety Authorisation'.

The Directive indicates a series of duties for the national Infrastructure Manager with the aim of:

- transferring to the Authority the necessary knowledge regarding the condition of the national rail network, allowing access to the RFI information databases;
- defining a process for gradually transferring activities of technical approval of the trackside subsystems currently being performed;
- implementing a series of measures for certain types of rail traffic (dangerous goods, shunting, work vehicles and sites) required for the Safety Authorisations.

The implementation of the Directive includes certain intermediate deadlines by which the RFI must comply with the Authority's requirements.

The Authority requested further details, in response to the information sent by the RFI relating to the deadlines of 31 March and 30 April.

It should be noted that the procedure for transferring the processes for technical approval of the infrastructural products/subsystems from the RFI to the Authority (which until now had been the responsibility of the Infrastructure Manager) has been defined, identifying the methods by which the Authority will complete the technical approval activities with the consequent authorisation for service start-up.

The activity of supervising railway safety continued, through analysis and control instruments designed to identify potential risks present in the railway system. This confirmed the need to continue with actions to address problems reported during previous years, pursuing the following main objectives:

- to reduce technical and structural discontinuities both within the railway system itself and at its interface with the outside;
- to reduce non-compliances attributable to human factors;
- to reduce non-compliances attributable to inadequacies in maintenance of the infrastructure and rolling stock.

In its role as the institutional sponsor of railway safety, the Authority sought to achieve these objectives by continuing its actions to identify critical aspects and by calling on railway operators to adopt appropriate measures while also opening up various channels for the qualification and training of personnel within the railway operators' organisations who are crucial to the safe management of the system.

During activities to supervise the work of operators, a need emerged to improve certain key safety management processes. This led to changes being made to Safety Management Systems and to implementation of the processes described, also in the light of the altered regulatory framework. The increase in small releases of dangerous substances detected in 2008 and in 2009 underwent a reversal in trend in 2010, which showed a reduction of occurrences. This result was achieved by raising the awareness of rail operators and of partners abroad, and due also to the involvement of the National Authorities of neighbouring countries.

The special attention devoted to completing the installation of technology to protect train movements, and to the problems concerning doors for the boarding and alighting of passengers from trains, was maintained in 2010. It should be noted that the process of acquisition by the Authority of responsibility for safety issues on regional networks interconnected with the national network has still not been completed. This process 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 the RFI.



[Italian National Safety Authority]

Annex A: Information on the railway infrastructure

Annex A.1: Extent of the national railway infrastructure

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

Annex A.1: Extent of the national railway infrastructure



RETE FS IN ESERCIZIO	NETWORK IN SERVICE
Legenda	Key
Linee Fondamentali	Main Lines
Linee Complementari	Secondary Lines
Linee di Nodo	Connecting Lines
RFI RETE FERROVIARIA ITALIANA	RETE FERROVIARIA ITALIANA [Italian Railway Network]
GRUPPO FERROVIE DELLO STATO DIREZIONE COMMERCIALE ED ESERCIZIO RETE	STATE RAILWAYS GROUP NETWORK MARKETING AND OPERATIONS DEPARTMENT
INGEGNERIA FUNZIONALE E SVILUPPO INFRASTRUTTURA	OPERATIONAL ENGINEERING AND INFRASTRUCTURE DEVELOPMENT
Progettazione Funzionale e Sistemi Territoriali	Operational Design and Territorial Systems
Agg. 30 Giugno 2010	Updated 30 June 2010



[Italian National Safety Authority]

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 Ministerial Decree No 138-T of 31 October 2000	31/10/2000	16794	3000	11388	15152	9218	1355	SCMT	11936	5683	44409
						25000	628				SSC	4214		
											ERTMS	644		

Railway Undertakings														
Name	Address	Web-site	Safety certificate 14/2001/EC (number and date)		Date of commencement of	Type of service			Number of units (Locomotives, Railcars)	Number of wagons	Number of carriages	Number of personnel with	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	129/2008	13/06/2008	30/05/2000 ¹	✓	✓	✓ all classes	7347	24200	7900	27965	267382000	30197000
LeNORD S.r.l.	P.le Cadorna, 14 20123 Milan (MI)	www.lenord.it	35/2009	01/12/2009	01/01/2004	✓	✓	✓ no classes 1 and 7	332	19	137	817	2119495.79	0
Rail Traction Company S.p.A.	Via Brennero, 7 39100 Bolzano (BZ)	www.railtraction.it	41/2009	29/12/2009	16/10/2001		✓	✓ no class 7	72	0	0	152	0	2206809

¹ Railway undertaking established by Ferrovie dello Stato.

Railway Undertakings														
Name	Address	Website	Safety certificate 14/2001/EC (number and date)		Date of commence- ment of commercial activities	Type of service			Number of units (Locomotives, Railcars, Multiple units)	Number of wagons	Number of carriages	Number of personnel with safety-related duties	Passenger volume (train-kilometres)	Goods volume (train-kilometres)
						Passengers	Goods	RID						
Gruppo Torinese Trasporti S.p.A.	Corso Turati 19/6 10128 Turin (TO)	www.comune.torino.it/gtt	83/2006	05/06/2006	27/07/2001	✓			36	0	0	nd	23721124	0
SERFER – Servizi Ferroviari S.r.l.	Via Rolla, 22/R 16152 Genoa (GE)	www.serferonline.com	65/2010	29/07/2010	06/06/2003	✓	✓	✓ (no classes 1 and 7)	20	0	0	1032	28400.843	1021132.285
HUPAC S.p.A.	Via Dogana 8/10 21052 Busto Arsizio (VA)	www.hupac.it	115/2007	21/12/2007	Data not provided by the RI		✓	✓ no class 7	5	0	0	96	0	19797
Ferrovie Emilia Romagna S.r.l.	Via S. Donato, 25 40127 Bologna (BO)	www.fer-online.it	74/2010	22/12/2010	01/01/01	✓	✓	✓ no class 7	184	0	15	467	2213200	238751

Railway Undertakings														
Name	Address	Website	Safety certificate 14/2001/EC (number and date)		Date of commence- ment of commercial activities	Type of service			Number of units (Locomotives, Railcars, Multiple units)	Number of wagons	Number of carriages	Number of personnel with safety-related duties	Passenger volume (train-kilometres)	Goods volume (train-kilometres)
						Passengers	Goods	RID						
Trasporto Ferroviario Toscano S.p.A.	Via G. Monaco, 37 52100 Arezzo (AR)	<a href="http://www.traspor
toferroviario
toscano.it">www.traspor toferroviario toscano.it	57/2010	01/06/2010	01/07/2004	✓	✓		13	0	0	67	0	3820
NORDCARG O S.r.l.	Via Spadolini, 12 20026 Novate Milanese	<a href="http://www.nordca
rgo.it">www.nordca rgo.it	34/2009	01/12/2009	30/07/2003		✓	no class 7	76	0	0	221	0	1912690
Ferrovia Adriatico Sangritana S.p.A.	Via Dalmazia, 9 Lanciano (CH)	<a href="http://www.sangrit
ana.it">www.sangrit ana.it	64/2010	27/07/2010	04/02/2004	✓	✓		36	0	0	50	603,356	253,241
Sistemi Territoriali S.p.A.	P.zza G. Zanellato, 5 – 35131 Padua	Data not provided	126/2008	06/06/2008	08/2003	✓	✓	no classes 1 and 7	51	0	0	96	573883.034	158443.912
SBB Cargo Italia S.r.l.	Via Damiano Chiesa, 2 21013 Gallarate (VA)	<a href="http://www.sbbcar
go.com">www.sbbcar go.com	42/2009	29/12/2009	14/12/2003		✓	no class 7	44	0	0	239	NA	1855141

Railway Undertakings

Name	Address	Website	Safety certificate 14/2001/EC (number and date)		Date of commence- ment of commercial activities	Type of service			Number of units (Locomotives, Railcars, Multiple units)	Number of wagons	Number of carriages	Number of personnel with safety-related duties	Passenger volume (train-kilometres)	Goods volume (train-kilometres)
						Passengers	Goods	RID						
METRO CAMPANIA NORDEST	Via Don Bosco ex scalo merci 80141 Naples (NA)	www.mcne.it	45/2004	30/11/2004	2005	✓			45	0	0	76	398240	0
Umbria TPL e Mobilità S.p.A. Ex Ferrovia Centrale Umbra S.r.l.	Strada Santa Lucia, 4 06125 Perugia	www.fcu.it	120/2008	09/04/2008	December 2002	✓			76	0	0	132	876034	0
Rail One S.p.A.	Piazzale Marconi, 69 66100 Chieti	Data not provided by the RI	71/2010	20/12/2010	2nd six months 2006		✓		2	0	0	9	0	0
CAPTRAIN Italia S.r.l. Ex SNCF Fret Italia S.r.l.	Via Toffetti 104 20139 Milan (MI)	<a href="http://www.captra
in.it">www.captra in.it	60/2010	23/06/2010	08/02/2006		✓	no class 7	30	0	0	79	0	319093
SAD – Trasporto Locale S.p.A.	Corso Italia 13/N 39100 Bolzano (BZ)	www.sad.it	36/2009	10/12/2009	05/05/2005	✓			40	0	0	91	1124931	0

Railway Undertakings														
Name	Address	Website	Safety certificate 14/2001/EC (number and date)		Date of commence- ment of commercial activities	Type of service			Number of units (Locomotives, Railcars, Multiple units)	Number of wagons	Number of carriages	Number of personnel with safety-related duties	Passenger volume (train-kilometres)	Goods volume (train-kilometres)
						Passengers	Goods	RID						
Ferrovie Udine Cividale S.r.l.	Via Peschiera, 30 33100 Udine (UD)	<a href="http://www.ferrovi
eudinescivi
dale.it">www.ferrovi eudinescivi dale.it	10/2008	30/10/2008	08/07/2008		✓		nn	nn	nn	13		116,710
Linea Ferroviaria S.p.A.	Via Girardengo, 60 15067 Novi Ligure (AL)	<a href="http://www.lineafe
rroviaria.it">www.lineafe rroviaria.it	76/2010	28/12/2010	01/08/2007		✓	no class 7	30	0	0	99	0	1312763
Ferrotramviaria S.p.A.	P.zza G. Winckelmann, 12 00162 Rome	<a href="http://www.ferrovi
enordbarese
.it">www.ferrovi enordbarese .it	59/2010	10/06/2010	18/06/2009		✓	no class 1 and 7	4	0	0	15	0	116001.27
Ferrovie del Gargano S.r.l.	Via Zuppetta, 7/D 70121 Bari	<a href="http://www.ferrovi
edelgargano
.com">www.ferrovi edelgargano .com	11/2008	30/10/2008	31/10/2008	✓			20	0	0	44	263900	0
Crossrail Italia S.r.l.	Scalo Ferroviario Domo 2 28851 Beura Cardezza (VB)	<a href="http://www.crossor
ail.it">www.crossor ail.it	73/2010	22/12/2010	09/04/2008		✓	no classes 1 and 7	20	0	0	82	0	551963

Railway Undertakings														
Name	Address	Website	Safety certificate 14/2001/EC (number and date)		Date of commence- ment of commercial activities	Type of service			Number of units (Locomotives, Railcars, Multiple units)	Number of wagons	Number of carriages	Number of personnel with safety-related duties	Passenger volume (train-kilometres)	Goods volume (train-kilometres)
						Passengers	Goods	RID						
CFI-Compagnia Ferroviaria Italiana S.p.A.	Viale Regina Margherita, 140 (00198) Rome	<a href="http://compagniaferrovia
riaitaliana.it">compagniaferrovia riaitaliana.it	72/2010	22/12/2010	18/08/2009		✓		8	45	0	34	0	569,366
In Rail S.p.A.	Corso Perrone 28a/R 16152 - Genoa	www.inrail.it	67/2010	29/07/2010	09/02/2009		✓	no class 1 and 7	Nd	Nd	Nd	Nd	Nd	Nd
Nuovo Trasporto Viaggiatori S.p.A.	Via del policlinico 149/b 00161 Rome	<a href="http://www.ntvspa.
it">www.ntvspa. it	75/2010	22/12/2010	Planned for 09/2011	✓			0	0	0	59	0	0
GTS S.p.A.	Via del tesoro 15 70123 Bari	<a href="http://www.gtsrail.
com">www.gtsrail. com	68/2010	05/10/2010	January 2010		✓		6	0	0	37	0	502,741.00
Ferrovie della Calabria	Via Milano 28 88100 Catanzaro	<a href="http://www.ferrovie
edellacalabri
a.it">www.ferrovie edellacalabri a.it	38/2009	10/12/2009	Planned for second half of 2010	✓	✓		6	0	1	1	0	0

Railway Undertakings														
Name	Address	Website	Safety certificate 14/2001/EC (number and date)		Date of commence- ment of commercial activities	Type of service			Number of units (Locomotives, Railcars, Multiple units)	Number of wagons	Number of carriages	Number of personnel with safety-related duties	Passenger volume (train-kilometres)	Goods volume (train-kilometres)
						Passengers	Goods	RID						
Arenaways	Via Gramsci 59 a 15121 Alessandria	www.arenaways.com	62/2010	25/06/2010	2010	✓			12	0	6	32	74435.904	0
Rail Italia	Via Ficucella c/o Interporto Sud Europa Edificio 4.1 81024 Maddaloni (CE)	Data not provided	63/2010	25/06/2010	24/11/2009	✓	✓		10	0	0	60	0	219005
Interporto Servizi Cargo	Via P.E. Imbriani, 30 80132 Naples	www.isc.it	70/2010	21/10/2010	2010		✓	no class 1 and 7	10	120	0	47	0	339,446
TX Logistik AG Filiale Italia	Via Somma campagna, 34 37137 Verona	www.txlogistik.de	66/2010	29/07/2010	NO		✓		8	0	0	4	0	474



[Italian National Safety Authority]

Annex B: Organisation of the Italian rail system

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

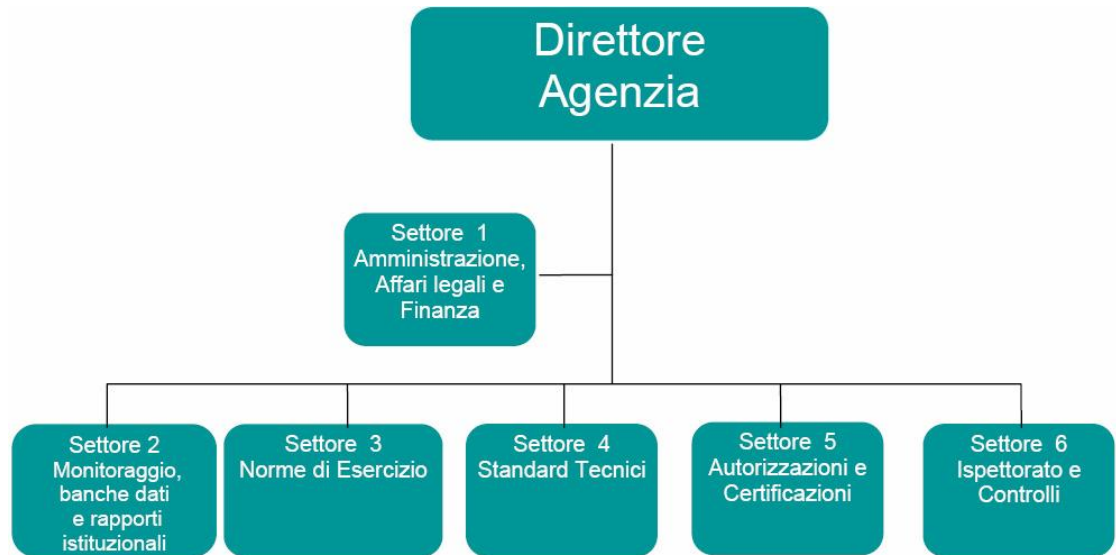
Annex B.2: Structure of the Italian rail system



[Italian National Safety Authority]

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

Organisation of the Italian National Safety Authority



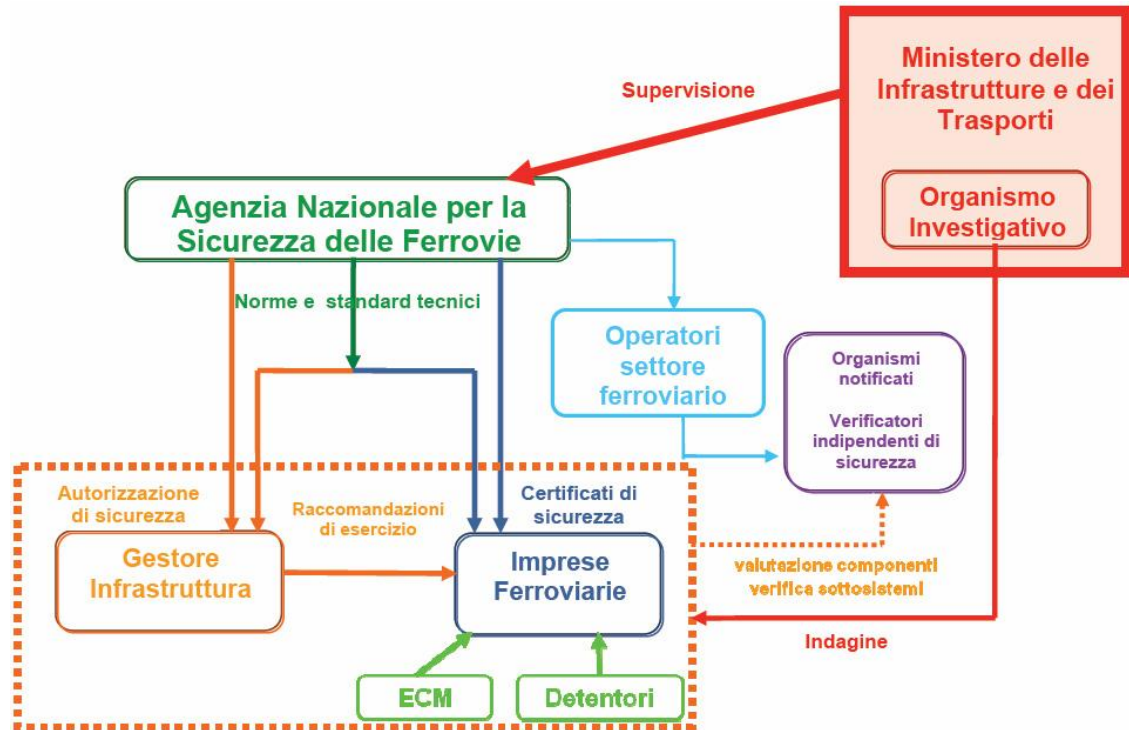
Direttore Agenzia	Authority Director
Settore 1 Amministrazione, Affari legali e Finanza	Sector 1 Administration, Legal Affairs and Finance
Settore 2 Monitoraggio, banche dati e rapporti istituzionali	Sector 2 Monitoring, databases and institutional relations
Settore 3 Norme di Esercizio	Sector 3 Operating regulations
Settore 4 Standard Tecnici	Sector 4 Technical Standards
Settore 5 Autorizzazioni e Certificazioni	Sector 5 Authorisations and certificates
Settore 6 Ispettorato e Controlli	Sector 6 Inspections and Controls



[Italian National Safety Authority]

Annex B.2: Structure of the Italian rail system

Italian National Rail System



Supervisione	Supervision
Ministero delle Infrastrutture e dei Trasporti	Ministry of Infrastructure and Transport
Organismo Investigativo	Investigation Body
Agenzia Nazionale per la Sicurezza delle Ferrovie	Italian National Safety Authority
Norme e standard tecnici	Technical regulations and standards
Operatori settore ferroviario	Railway sector operators
Organismi notificati	Notified bodies
Verificatori indipendenti di sicurezza	Independent safety auditors
Autorizzazione di sicurezza	Safety authorisation
Gestore Infrastruttura	Infrastructure operator
Raccomandazioni di esercizio	Operational recommendations
Certificati di sicurezza	Safety certificates
Imprese Ferroviarie	Railway Undertakings
valutazione componenti verifica sottosistemi	components assessment subsystems check
Indagine	Investigation
ECM	ECM
Detentori	Owners

Annex C: Data on the Common Safety Indicators

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

Annex C.2: List of accidents on the National Railway infrastructure,
compiled in order to prepare the Common Safety
Indicators pursuant to Directive 2004/49/EC – 2010



[Italian National Safety Authority]

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

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

The following data refer to the infrastructure managed by the RFI only.

The Italian NSA has not yet acquired the competencies on the lines connected with the infrastructure managed by the RFI.

For 2010 it has been decided to not use the data furnished by ISTAT anymore because they do not give the accuracy needed to fulfil the requirements of Directive 149/2009/EC.

Consequently, the data are not perfectly comparable with that provided in the previous years.

Guidelines for data transmission and file formats ver.2010

num ber	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	2010
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	103
2	N01	Number of Collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	2
3	N02	Number of Derailments of trains	Numeric value	3
4	N03	Number of Level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	15
5	N04	Number of Accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	80
6	N05	Number of Fires in rolling stock	Numeric value	0
7	N06	Number of Other accidents	Numeric value	3
1.2a. Total number of suicides				
15	N07	Number of events: suicide	Numeric value	109
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	5
18	N19	Number of accidents involving at least one railway vehicle transporting dangerous goods in which dangerous goods are NOT released	Numeric value	0
19	N20	Number of accidents involving at least one railway vehicle transporting dangerous goods in which dangerous goods ARE released	Numeric value	5
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	32
24	TS01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	1
25	TS02	In derailments of trains	Numeric value	0
26	TS03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	4
27	TS04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	25
28	TS05	In fires in rolling stock	Numeric value	0
29	TS06	In others	Numeric value	2
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	6
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	0
41	PS04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	6
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	5
66	SS01	In collisions of trains, including collisions with obstacles within the clearance gauge	Numeric value	1
67	SS02	In derailments of trains	Numeric value	0
68	SS03	In level-crossing accidents, including accidents involving pedestrians at level-crossings	Numeric value	1
69	SS04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	1
70	SS05	In fires in rolling stock	Numeric value	0
71	SS06	In others	Numeric value	2
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	3
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	3
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	18
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
97	US04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	18
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

num ber	Data code	Description of data	Data format	Example of data
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	71
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	11
125	TK04	In accidents to persons caused by rolling stock in motion, with the exception of suicides	Numeric value	60
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	7
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	7
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	5
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	5
168	SK05	In fires in rolling stock	Numeric value	0
169	SK06	In others	Numeric value	0

num ber	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	11
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	11
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	48
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	48
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	958
220	I01	Total number of broken rails	Numeric value	368
221	I02	Total number of track buckles	Numeric value	573
222	I03	Total number of wrong-side signalling failures	Numeric value	1
223	I04	Total number of signals passed at danger	Numeric value	10
224	I05	Total number of broken wheels on rolling stock in service	Numeric value	5
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 €	123092111
235	C01	Economic impact of fatalities	Numeric value in €	101545844
236	C02	Economic impact of serious injuries	Numeric value in €	5879317
As a result of ALL accidents				
237	C03	Cost of material damages to rolling stock or infrastructure (all accidents)	Numeric value in €	
238	C07	Cost of damage to the environment (all accidents)	Numeric value in €	
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)	
241	C06	Minutes of delays of freight trains (all accidents)	Numeric value (minutes)	
As a result of significant accidents ONLY				
242	C13	Cost of material damages to rolling stock or infrastructure (significant accidents)	Numeric value in €	6.380.000,00
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 €	9286949
245	C15	Minutes of delays of passenger trains (significant accidents)	Numeric value (minutes)	81038
246	C16	Minutes of delays of freight trains (significant accidents)	Numeric value (minutes)	28426
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 (%)	92,69%
257	T03	Total number of level crossings (active and passive)	Numeric value	5683
258	T06	Total number of active level crossings	Numeric value	4583
259	T07	with automatic user-side warning	Numeric value	60
260	T08	with automatic user-side protection	Numeric value	4
261	T09	with automatic user-side protection and warning	Numeric value	4218
262	T10	with automatic user-side protection and warning, and rail-side protection	Numeric value	294
263	T11	with manual user-side warning	Numeric value	0
264	T12	with manual user-side protection	Numeric value	3
265	T13	with manual user-side protection and warning	Numeric value	4
266	T14	Total number of passive level crossings	Numeric value	1100
7. Indicators relating to the management of safety				
287	A01	Total number of accomplished audits	Numeric value	2223

num ber	Data Code	Description of data	Data format	Example of data
288	A02	Percentage of audits accomplished /required (and/or planned).	Numeric value (%)	80,19%
8. Reference data traffic and infrastructure				
289	R01	Total number of Train km	Numeric value (in million Train*km)	323,955
290	R02	Number of Passenger km	Numeric value (in million Passenger*km)	43473,624
291	R05	Number of Passenger train km	Numeric value (in million Train*km)	280,322
292	R06	Number of Freight train km	Numeric value (in million Train*km)	43,633
293	R04	Number of Other train km	Numeric value (in million Train*km)	0,000
294	R07	Number of Freight tonne km	Numeric value (in million tonne*km)	19563,535
295	R08	Number of line kilometres (double track lines are to be counted ONCE)	Numeric value (in km)	16794,000
296	R03	Number of track kilometres (double track lines are to be counted TWICE)	Numeric value (in km)	24370,000
9. Reference data for economic indicators				
297	R09	Average percentage of work passengers per year	Numeric value (%)	35%
298	R10	Average percentage of non-work passengers per year	Numeric value (%)	65%
299	R11	National value of preventing a fatality	Numeric value in €	1.430.223,16
300	R12	National value of preventing a serious injury	Numeric value in €	183.728,67
301	R13	National value of time for a work passenger of a train (an hour)	Numeric value in €	
302	R14	National value of time for a non-work passenger of a train (an hour)	Numeric value in €	
303	R15	National value of time for a tonne freight (an hour)	Numeric value in €	
304	R16	Fall back value of preventing a fatality	Numeric value in €	1612687,22
305	R17	Fall back value of preventing a serious injury	Numeric value in €	207168,28
306	R18	Fall back value of time for a work passenger of a train (an hour)	Numeric value in €	28,90
307	R19	Fall back value of time for a non-work passenger of a train (an hour)	Numeric value in €	9,63
308	R20	Fall back value of time for a tonne freight (an hour)	Numeric value in €	1,47

Annex C.2: List of accidents on the National Railway infrastructure, compiled in order to prepare the Common Safety Indicators pursuant to Directive 2004/49/EC – 2010

List of accidents on the National Railway infrastructure operated by the RFI, compiled in order to prepare the Common Safety Indicators pursuant to Directive 2004/49/EC – 2010															
1	2	3	4	5	6	7		8		9		10		11	
No	Date	Location	Type of accident/incident	Cause of event	ERA classification	Passengers		Personnel, including companies		Level crossing users		Unauthorised persons		Others	
						Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured
1	01/11/2010	San Remo -Bordighera	Train collision with landslides, masses and trees on track	Landslides/earths/trees blocking the line	train collision	0	0	0	1	0	0	0	0	0	0
2	17/11/2010	CONTURSI TERME-CAMPAGNA A SERRE PERSANO	Train collision with landslides, earths and trees on track	Landslides/earths/trees blocking the line	train collision	0	0	0	0	0	0	0	0	0	0
3	26/1/2010	SECUGNAGO-LODI	Derailment of traction unit or rolling stock forming part of train	Irregularity in track geometry (jolting/buckling/broken rail) or irregular track bed or infrastructure	train derailment	0	0	0	0	0	0	0	0	0	0
4	10/02/2010	MACCARESE	Derailment of traction unit or rolling stock forming part of train	Mechanical or electrical defects/wear in rolling stock/traction units	train derailment	0	0	0	0	0	0	0	0	0	0
5	15/10/2010	CUNEO-BIVIO MADONNA DELL'OLMO	Derailment of traction unit or rolling stock forming part of train	Train arrival/departure without checks	Train derailment	0	0	0	0	0	0	0	0	0	0
6	9/4/2010	RECCO	Collision of special vehicles with other obstacles	Irregular shunting movements	other types of accident	0	0	0	1	0	0	0	0	0	0
7	22/6/2010	RAPONE RUVO S.FELE S. TOMMASO DEL PIANO	Collision of special vehicles with other obstacles	Interruption events	other types of accident	0	0	0	1	0	0	0	0	0	0
8	21/9/2010	S.ILARIO	Derailment of rolling stock being shunted	Failure to check correct position of points	other types of accident	0	0	0	0	0	0	0	0	0	0
9	5/1/2010	LUCCA-TASSIGNANO	Collision with persons at closed level crossings (incl. cyclists)	Level crossings: Persons or cyclists crossing improperly	level-crossing accidents	0	0	0	0	1	0	0	0	0	0
10	24/3/2010	MODENA-SOLIERA MODENESE	Collision with persons at closed level crossings (incl. cyclists)	Level crossings: Persons or cyclists crossing improperly	level-crossing accidents	0	0	0	0	1	0	0	0	0	0
11	27/3/2011	CREMA-MADIGNANO	Collision with persons at closed level crossings (incl. cyclists)	Level crossings: Persons or cyclists crossing improperly	level-crossing accidents	0	0	0	0	1	0	0	0	0	0
12	27/3/2012	MONZA-ARCORE	Collision with persons at closed level crossings (incl. cyclists)	Level crossings: Persons or cyclists crossing improperly	level-crossing accidents	0	0	0	0	0	1	0	0	0	0
13	06/05/2010	CIVATE-SALA AL BARRO-GALBIATE	Collision with persons at closed level crossings (incl. cyclists)	Level crossings: Persons or cyclists crossing improperly	level-crossing accidents	0	0	0	0	1	0	0	0	0	0

List of accidents on the National Railway infrastructure operated by the RFI, compiled in order to prepare the Common Safety Indicators pursuant to Directive 2004/49/EC – 2010

List of accidents on the National Railway infrastructure operated by the RFI, compiled in order to prepare the Common Safety Indicators pursuant to Directive 2004/49/EC – 2010															
1	2	3	4	5	6	7		8		9		10		11	
No	Date	Location	Type of accident/incident	Cause of event	ERA classification	Passengers		Personnel, including companies		Level crossing users		Unauthorised persons		Others	
						Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured
14	11/6/2010	STRAMBINO	Collision with persons at closed level crossings (incl. cyclists)	Level crossings: Persons or cyclists crossing improperly	level-crossing accidents	0	0	0	0	1	0	0	0	0	0
15	1/8/2010	ASSISI	Collision with persons at closed level crossings (incl. cyclists)	Level crossings: Persons or cyclists crossing improperly	level-crossing accidents	0	0	0	0	0	1	0	0	0	0
16	10/8/2010	SACILE	Collision with persons at closed level crossings (incl. cyclists)	Level crossings: Persons or cyclists crossing improperly	level-crossing accidents	0	0	0	0	1	0	0	0	0	0
17	4/9/2010	ASTI-MONGARDINO	Collision with persons at closed level crossings (incl. cyclists)	Improper crossing of track	level-crossing accidents	0	0	0	0	1	0	0	0	0	0
18	23/9/2010	ALFONSINE-VOLTANA	Collision with persons at closed level crossings (incl. cyclists)	Level crossings: Persons or cyclists crossing improperly	level-crossing accidents	0	0	0	0	0	1	0	0	0	0
19	28/9/2010	ROCCA RAVINDOLA-VENAFRO	Train collisions with road vehicles at closed level crossing	Level crossings: Vehicles crossing/opening points improperly	level-crossing accidents	0	0	0	0	1	0	0	0	0	0
20	29/9/2010	MADDALONI INFERIORE-BIVIO MADDALONI	Collision with persons at closed level crossings (incl. cyclists)	Level crossings: Persons or cyclists crossing improperly	level-crossing accidents	0	0	0	0	1	0	0	0	0	0
21	10/10/2010	TORRE ANNUNZIATA CENTRALE-POMPEI	Collision with persons at closed level crossings (incl. cyclists)	Level crossings: Persons or cyclists crossing improperly	level-crossing accidents	0	0	0	0	1	0	0	0	0	0
22	3/12/2010	DELIA-CANICATTI	Collision with persons at closed level crossings (incl. cyclists)	Level crossings: Persons or cyclists crossing improperly	level-crossing accidents	0	0	0	1	0	0	0	0	0	0
23	13/12/2010	BAGNI DI TIVOLI-GUIDONIA-MONTECELLO-S.ANGELO	Train collisions with road vehicles at closed level crossing	Level crossings: Vehicles crossing/opening points improperly	level-crossing accidents	0	0	0	0	1	0	0	0	0	0
24	15/1/2010	CATANIA CENTRALE	Railway personnel run down/injured during service	Lack of attention/falling/injury to railway personnel	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	1	0	0	0	0	0	0	0

List of accidents on the National Railway infrastructure operated by the RFI, compiled in order to prepare the Common Safety Indicators pursuant to Directive 2004/49/EC – 2010

1	2	3	4	5	6	7		8		9		10		11	
No	Date	Location	Type of accident/incident	Cause of event	ERA classification	Passengers		Personnel, including companies		Level crossing users		Unauthorised persons		Others	
						Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured
25	12/1/2010	ROMA TERMINI ROMA CASILINA	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
26	19/1/2010	FUNO CENTERGROSS S. GIORGIO P.	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
27	22/1/2010	ROMA S.FILIPPO NERIROMA MONTE MARIO	Collision with persons (excl. level crossings)	Improper ascent onto/descent from train	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	1	0	0	0	0	0	0	0	0	0
28	28/1/2010	CIVITANOVA MARCHE-PORTO S. ELPIDIO	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
29	9/1/2010	SESTO S. GIOVANNI	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
30	11/1/2010	MILANO CERTOSATRIPOLO BIVIO SEVESO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
31	21/1/2010	FONDI - SPERLONGA	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
32	2/2/2010	VILLADOSSOLA- PALLANZENO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
33	7/2/2010	PONTICINO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0

List of accidents on the National Railway infrastructure operated by the RFI, compiled in order to prepare the Common Safety Indicators pursuant to Directive 2004/49/EC – 2010															
1	2	3	4	5	6	7		8		9		10		11	
No	Date	Location	Type of accident/incident	Cause of event	ERA classification	Passengers		Personnel, including companies		Level crossing users		Unauthorised persons		Others	
						Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured
34	7/2/2010	PAULILATINO ABBASANTA	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
35	5/2/2010	SESTO S. GIOVANNIMILANO GRECO PIRELLI	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
36	21/2/2010	S. SEVERO- RIGNANO GARGANICO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
37	19/2/2010	ARDENNO MASINOTALAMONA	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	1	0	0
38	24/2/2010	LA SPEZIA CENTRALE	Collisions with/injury to railway personnel during service	Lack of attention/falling/injury to railway personnel	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	1	0	0	0	0	0	0	0
39	22/2/2010	MILANO CERTOSARHO	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
40	27/2/2010	PIACENZA	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
41	1/3/2010	CAPACI-CARINI	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	1	0	1	0	0	0
42	5/3/2010	CERIGNOLAORTA NOVA	Collision with/injury to company personnel during works performance.	Abnormalities affecting work teams/sites	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	1	0	0	0	0	0	0	0

List of accidents on the National Railway infrastructure operated by the RFI, compiled in order to prepare the Common Safety Indicators pursuant to Directive 2004/49/EC – 2010

1	2	3	4	5	6	7		8		9		10		11	
No	Date	Location	Type of accident/incident	Cause of event	ERA classification	Passengers		Personnel, including companies		Level crossing users		Unauthorised persons		Others	
						Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured
43	3/3/2010	MILANO LAMBRATEMILANO ROGOREDO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
44	6/3/2010	ITRI-FORMIA	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
45	12/3/2010	GROSSETO- ALBERESE	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
46	19/3/2010	MIRA MIRANO-DOLO	Persons falling from rolling stock in motion	Improper ascent onto/descent from train	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	1	0	0	0	0	0	0	0	0
47	26/3/2010	S.MARCELLINO FRIGNANO	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
48	8/4/2010	ROMA NOMENTANA L.L.-NUOVO SALARIO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
49	5/4/2010	MILANO CERTOSA	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
50	21/4/2010	PRIVERNO FOSSANOVA- MONTE S. BIAGIO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
51	27/4/2010	PONZANA-BORGIO VERCELLI	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0

List of accidents on the National Railway infrastructure operated by the RFI, compiled in order to prepare the Common Safety Indicators pursuant to Directive 2004/49/EC – 2010

1	2	3	4	5	6	7		8		9		10		11	
No	Date	Location	Type of accident/incident	Cause of event	ERA classification	Passengers		Personnel, including companies		Level crossing users		Unauthorised persons		Others	
						Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured
52	1/5/2010	ALTAVILLA TAVERNELLE-VICENZA	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
53	30/4/2010	ALBATE CAMERLATA BIVIO ROSALES	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
54	17/4/2010	MONTEROSSO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
55	14/4/2010	MONZA	Injury to persons during ascent onto/descent from carriages	Improper ascent onto/descent from train	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	1	0	0	0	0	0	0	0	0
56	20/5/2010	PERUGIA PONTE S. GIOVANNI OSPEDALICCHIO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
57	1/4/2010	ROMA TERMINI	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
58	26/5/2010	ORIOLO-MANZIANA CANALE MONTERANO	Persons falling from rolling stock in motion	Improper ascent onto/descent from train	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	1	0	0	0	0	0	1	0	0	0
59	6/6/2010	PORTOGRUARO CAORLE PRAMAGGIORE	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	1	0	0
60	14/6/2010	REZZATO-BRESCIA	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0

List of accidents on the National Railway infrastructure operated by the RFI, compiled in order to prepare the Common Safety Indicators pursuant to Directive 2004/49/EC – 2010															
1	2	3	4	5	6	7		8		9		10		11	
No	Date	Location	Type of accident/incident	Cause of event	ERA classification	Passengers		Personnel, including companies		Level crossing users		Unauthorised persons		Others	
						Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured
61	18/6/2010	VILAFRANCA –BAGNONE	Injury to persons during ascent onto/descent from carriages	Mechanical or electrical defects/wear in rolling stock/traction units	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	1	0	0	0	0	0	0	0	0
62	7/7/2010	ORTANOVA	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
63	4/6/2010	BIVIO MADDALONI - MADDALONI INFERIORE	Persons falling from rolling stock in motion	Improper ascent onto/descent from train	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	1	0	0	0	0	0	0	0	0	0
64	9/7/2010	RUBIERA-MODENA	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
65	12/7/2010	LEGNANO - CANEGRATE	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
66	12/7/2010	SIPONTO - MANFREDONIA	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
67	18/7/2010	CASTIGLION FIORENTINO	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
68	16/7/2010	DUBINO-COLICO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
69	24/7/2010	COGOLETO - VARAZZE	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0

List of accidents on the National Railway infrastructure operated by the RFI, compiled in order to prepare the Common Safety Indicators pursuant to Directive 2004/49/EC – 2010															
1	2	3	4	5	6	7		8		9		10		11	
No	Date	Location	Type of accident/incident	Cause of event	ERA classification	Passengers		Personnel, including companies		Level crossing users		Unauthorised persons		Others	
						Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured
70	29/7/2010	PIETRABISSARA - ISOLA DEL CANTONE	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
71	4/8/2010	PM S. VIOLA	Collisions with/injury to company personnel during works implementation.	Abnormalities affecting work teams/sites	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	1	0	0	0	0	0	0	0
72	7/8/2010	SASSO MARCONI	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
73	28/7/2010	ROMA TUSCOLANA	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
74	22/8/2010	JESI - CHIARAVALLE	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
75	18/8/2010	TREVIGLIO	Injury to persons during ascent onto/descent from carriages	Improper ascent onto/descent from train	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	1	1	0	0	0	0	0	0	0	0
76	31/8/2010	FAENZA - FORLI'	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
77	31/8/2010	TREBISACCE	Persons falling from rolling stock in motion	Improper ascent onto/descent from train	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	1	0	0	0	0	0	0	0	0	0
78	30/8/2010	PRATO - SESTO FIORENTINO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0

List of accidents on the National Railway infrastructure operated by the RFI, compiled in order to prepare the Common Safety Indicators pursuant to Directive 2004/49/EC – 2010

1	2	3	4	5	6	7		8		9		10		11	
No	Date	Location	Type of accident/incident	Cause of event	ERA classification	Passengers		Personnel, including companies		Level crossing users		Unauthorised persons		Others	
						Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured
79	19/8/2010	BIVIO CASTELLUCCIO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
80	1/9/2010	POLICASTRO BUSSENTINO - CAPITELLO	Collision with/injury to railway personnel during service	Interruption events	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	1	1	0	0	0	0	0	0
81	14/4/2010	MARINA DI CERVETERI - CERVETERI LADISPOLI	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
82	22/9/2010	FORMIA - MINTURNO	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
83	22/9/2010	PRATO BORGONUOVO PRATO PORTA AL SERRAGLIO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
84	15/9/2010	GINOSA	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
85	3/9/2010	GIOIA TAURO	Persons falling from rolling stock in motion	Improper ascent onto/descent from train	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	1	0	0	0	0	0	0	0	0	0
86	1/10/2010	ROMA TUSCOLANA	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
87	5/10/2010	LAVIS - MEZZOCORONA	Injury to persons during ascent onto/descent from carriages	Improper ascent onto/descent from train	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	1	0	0	0	0	0	0	0	0	0

List of accidents on the National Railway infrastructure operated by the RFI, compiled in order to prepare the Common Safety Indicators pursuant to Directive 2004/49/EC – 2010															
1	2	3	4	5	6	7		8		9		10		11	
No	Date	Location	Type of accident/incident	Cause of event	ERA classification	Passengers		Personnel, including companies		Level crossing users		Unauthorised persons		Others	
						Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured
88	7/10/2010	MAGLIANA - VILLA BONELLI	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
89	2/10/2010	CARNATE USMATE - OSNAGO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
90	12/10/2010	TRECATE	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
91	4/11/2010	MONTECAROTTO CASTELBELLINO - CASTELPLANIO CUPRAMONTANA	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
92	8/11/2010	CASORIA - FRATTAMAGGIORE	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
93	23/11/2010	BARLETTA	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
94	28/11/2010	VIBO VALENZIA PIZZO ECCELLENTE	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
95	27/11/2010	SESTO S. GIOVANNI	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
96	26/9/2010	NAPOLI CENTRALE	Injury to persons during ascent onto/descent from carriages	Improper ascent onto/descent from train	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	2	0	0	0	0	0	0	0	0

List of accidents on the National Railway infrastructure operated by the RFI, compiled in order to prepare the Common Safety Indicators pursuant to Directive 2004/49/EC – 2010															
1	2	3	4	5	6	7		8		9		10		11	
No	Date	Location	Type of accident/incident	Cause of event	ERA classification	Passengers		Personnel, including companies		Level crossing users		Unauthorised persons		Others	
						Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured	Fatalities	Injured
97	28/11/2010	IMPERIA PORTO MAURIZIO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
98	5/12/2010	ROMA CASILINA	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
99	6/12/2010	DOPPIO BIVIO NOMENTANO-ROMA TIBURTINA	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	0	1	0	0
100	21/12/2010	TAVAZZANO-LODI	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
101	24/12/2010	MILANO LAMBRATE	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
102	19/12/2010	CERVIA- MILANO MARITTIMA CESENATICO	Collision with persons (excl. level crossings)	Persons on line/not at a safe distance	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0
103	18/12/2010	ROMA OSTIENSE ROMA TUSCOLANA	Collision with persons (excl. level crossings)	Improper crossing of tracks	Accidents to persons caused by rolling stock in motion (with the exception of suicides or attempted suicides)	0	0	0	0	0	0	1	0	0	0



[Italian National Safety Authority]

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 15 of 25 January 2010	18/02/2010	Amendment. Implementation of Directive 2007/58/EC, amending Directives 91/440/EEC on the development of the Community's railways and 2001/14/EC on the distribution of railway infrastructure capacity and on the enforcement of rights to use the railway infrastructure	Amendments to Legislative Decree No 188/2003 – licences for passenger transport activities.
	Legislative Decree No 35 of 27 January 2010	12/03/2010	New. Implementation of Directive 2008/68/EC on the inland transport of dangerous goods.	Regulations on the inland transport of dangerous goods.
	Law No 152 of 13 August 2010	28/09/2010	Amendment to Article 4 of Legislative Decree No 162 of 10 August 2007 aimed at guaranteeing the operation of the Italian National Safety Authority.	Regulations on personnel used by the Authority under convention conditions.
	Legislative Decree No 191 of 8 October 2010	20/11/2010	New. Implementation of Directive 2008/57/EC on the interoperability of the Community rail system	Regulations on the service start-up of the interoperable material.
	Legislative Decree No 264 of 23 December 2010	11/02/2011	New. Implementation of Directive 2005/47/EC of 18 July 2005 concerning the agreement between the Community of European Railways (CER) and the European Transport Workers' Federation (ETF) on certain aspects of the working conditions of mobile workers performing cross-border interoperability services in the rail sector.	Regulations on working hours.
	Legislative Decree No 247 of 30 December 2010	22/01/2011	New. Implementation of Directive 2007/59/EC on certification of drivers of locomotives and trains on the Community rail system	Regulations on drivers' licences and certificates.
	Decree of the Ministry of Infrastructure and Transport No 0000813 of 29 October 2010	29/10/2010	Amendment. The requirements of Presidential Decree No 753/80 continue to apply to the interconnected regional networks, for which systems homogeneous with those of the regional network have not been completed, until completion of such systems	Deferring application of the regulations under Article 27(4) of Legislative Decree No 162 of 10 August 2007 to the regional rail networks in respect of which systems have not been completed for making the technological levels of the regional networks homogeneous with those of the national railway infrastructure.
	Decree of 29 December 2010		New. Implementation of Article 11 of Legislative Decree No 35 of 27 December 2010 concerning the implementation of Directive 2008/68/EC on inland transport of dangerous goods.	The inland transport of dangerous goods.

	LEGISLATION	DATE OF ENTRY INTO FORCE OF LEGISLATION	GROUND FOR INTRODUCTION (STATE WHETHER NEW LAW OR AMENDMENT TO EXISTING LAW)	PARTICULARS
Legislation concerning the national authority responsible for safety	Law No 152 of 13 August 2010	28 September 2010	Amendment to Article 4 of Legislative Decree No 162 of 10 August 2007 aimed at guaranteeing the operation of the Italian National Safety Authority.	Regulations on personnel employed by the Authority under convention conditions.
	ANSF Decree 8/2010	12/07/2010	Updating of Annex B of ANSF decree 1/2009	Updating of Decree No 1/2009 of 6 April 2009 concerning the revision of Annex B to take into account the regulatory circulars already cancelled at the date of issue of Decree No 1/2009.
NATIONAL REGULATIONS RELATING TO RAILWAY SAFETY				
Regulations relating to objectives and safety methods in force at national level	Ministerial Decree of 10 September 2010	26 February 2011	New. Implementation of Commission Directive 2009/149/EC amending Annex 1 of Directive 2004/49/EC of the European Parliament and of the Council with regard to the common safety indicators and common methods to calculate accident-related costs.	Regulations on the Common Safety Indicators
Regulations relating to requirements of railway undertaking safety management and certification systems, and regulations concerning requirements relating to infrastructure manager safety management systems	ANSF memo Ref. No 01766/10	24/03/2010	Cancellation of direction RTI-DTC¥A0010¥P¥2006¥0001528	Guidelines 6/2010 for issue of the safety certificate.
	ANSF Directive 1/dir/2010 of 9 November 2010	Upgrading of safety management system by 31 December 2010	New. Formalities for issue of the Safety Authorisation.	Formalities of the Infrastructure Manager RFI regarding rail traffic safety and activities necessary for issue of the Safety Authorisation.
Regulations concerning requirements for wagon owners	NONE			
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	ANSF memo Ref. No 00770/10	10/02/2010	Supplements to ANSF memos Ref. No 00892/09 of 19 February 2009 and 01792/08 of 3 November 2008	Supplements to memos of the Authority regarding hire of rolling stock.

	LEGISLATION	DATE OF ENTRY INTO FORCE OF LEGISLATION	GROUNDS FOR INTRODUCTION (STATE WHETHER NEW LAW OR AMENDMENT TO AN EXISTING LAW)	PARTICULARS
inspection procedures	ANSF memo Ref. No 03356/10	of 28 May 2010	Supplements and amendments to ANSF memos Ref. No 04738/09 of 26 August 2009 and No 06846 of 25 November 2009	Short-term mitigating measures relating to the transport of dangerous goods – Traceability of type 'A' axles and maintenance of trapezoidal leaf springs.
	ANSF memo Ref. No 07838/10	of 6 December 2010	Supplements to ANSF memo Ref. No 06820/2009 of 25 November 2009	Maintenance of trapezoidal leaf springs.
	ANSF memo Ref. No 08273/10 of	22 December 2010	Confirmation of content of ANSF memo Ref. No 03356/10 setting out random checks by the Railway Undertakings on wagons registered abroad used for the transport of dangerous goods for which traceability data are not available.	Short-term mitigating measures relating to the transport of dangerous goods– Traceability of type 'A' axles.
	ANSF memo Ref. No 03827/10	17/06/2010	Procedure clarification	Procedure clarification – Cancellation of railway vehicles from national registration system – ANST memo Ref. No 01821/09 of 9 April 2009.
	ANSF Directive 2/dir/2010 of 9 November 2010		Amendment. Directive on the operation of trains unprotected by train movement protection systems	Introduction of further restrictions to mitigate the risks associated with the operation, on lines operated by the RFI, of trains not yet equipped with train movement protection subsystems.
	ANSF Decree 11/2010 of 11 November 2010	12/12/2010	Implementation of the content of Directive 2/dir/2010 in regulatory texts.	Amendments to service regulations for the adoption of the restrictions laid down by Directive 2/dir/2010 of 9 November 2010 (Updating RCT-IPCL [<i>Train driving crew instructions</i>] – ISPAT [<i>Train personnel service instructions</i>]).
Regulations relating to requirements to be satisfied by personnel performing essential safety tasks,	Guidelines 07/2010 of 27/10/2010	01/01/2012	New. Procedures, requirements and documents to be produced for accreditation of a training centre.	Issue of guidelines for accreditation of Training Centres.

	LEGISLATION	DATE OF ENTRY INTO FORCE OF LEGISLATION	GROUNDS FOR INTRODUCTION (STATE WHETHER NEW LAW OR AMENDMENT TO AN EXISTING LAW)	PARTICULARS
including selection criteria, medical fitness, vocational training and certification				
	ANSF memo Ref. No 02958/2010	12/05/2010		Sanitary requirements for the 'shunting control' by personnel used in activities for crewing trains or manning transfer trains.
	ANSF memo Ref. No 07537/09	23/12/2009	Specific details concerning compliance with RFI order No 17/2000 and ANSF decree No 14/2009	Procedures for realignment of the skills of instructors of the Railway Undertakings.
Regulations on investigations into accidents and incidents, including recommendations	NONE			
Regulations on requirements of national safety indicators, including regulations on the method of collecting and analysing indicators	ANSF memo Ref. No 03142/2010 of 19 May 2010	Preparation of report by 30 June 2011	Amendment to ANSF memo Ref. No 03170 of 17 June 2009, revision 1	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	ANSF memo 04447/10 of 12 July 2010	Upgrading to EN15313/2010 by 31 December 2011	New. Awaiting adoption at EU level in relation to non-destructive testing.	Measures to be adopted for implementation of non-destructive testing of components of the rolling stock running on the RFI S.p.A. network.
Regulations for operating the railway network, including regulations on signalling and traffic management systems	ANSF decree No 2/2010 of 24 February 2010	01/06/2010	Amendment of shunting regulations: re-definition of shunting by pushing, with details of the position of the driver's cab as the characterising element.	Supplements and amendments to regulations governing shunting – Updating IPCL – Updating ISM [<i>Shunting service instructions</i>] and PGOS [<i>General timetable introduction</i>].
	ANSF decree No 3/2010 of 24 February 2010	01/03/2010	New. Assumption by the Authority, based on Article 6 of Legislative Decree No 162 of 10 August 2007, of the powers relating to technical sector regulation relating to the conditions of approval for combined rail transport of containers and intermodal loading units (ILU) already operated by F.S. Group	Conditions of approval for combined rail transport of intermodal containers and loading units and relative attribution of responsibilities at a national level.

	LEGISLATION	DATE OF ENTRY INTO FORCE OF LEGISLATION	GROUND FOR INTRODUCTION (STATE WHETHER NEW LAW OR AMENDMENT TO EXISTING LAW)	PARTICULARS
	ANSF decree No 4/2010 of 10 May 2010	12/12/2010	Amendment of the characteristic technical-operational regulations for the railway infrastructure and the numbering of trains. Cancellation of RFI order No 65/2005	Amendments concerning the notification of changes to the technical-operational characteristics of the railway infrastructure and numbering of trains (PGOS and ISM amendment).
	ANSF decree No 5/2010 of 25 May 2010	22/09/2010	Amendment to regulations for access to rolling stock driver's cab: cancellation of RFI order 1/2000 and ANSF memo 01774/2010 of 23 March 2010.	Amendments to regulations governing access to rolling stock driver's cab (IPCL and ISPAT amendments).
	ANSF Decree 6/2010 of 12 July 2010	12/07/2010	Amendment to regulation for technical checking of vehicles and cancellation of ANSF memos 03041/2010 of 17 May 2010 and 03517/2010 of 7 June 2010	Amendment of the regulations for technical verification of the vehicles, relating to the performance of the complete inspection at the origin of the trains carrying dangerous goods – NVTV [<i>Rules for the technical checking of vehicles</i>] update.
	ANSF decree No 7/2010 of 12 July 2010	10/10/2010	New. Experimental standards for streamlining the management of downgrading on lines equipped with ERTMS/ETCS L2 and stretches of conventional lines for commercial completion with the regulations for use of the requirement modules being exceeded.	'Experimental standards for notification of the movement requirements with verbal communications recorded on certain line stretches and for certain services'. (ANSF memo 6005/10).
	ANSF Decree 10/2010 of 27 July 2010	01/01/2011	Amendment of regulations on the transport of dangerous goods	Transport of dangerous goods: removal from the Regulatory Texts of standards contained in the current legislation – possibility for the Railway Undertakings to prepare a single emergency schedule to be attached to the list of vehicles/vehicles sheet.

	LEGISLATION	DATE LEGISLATION ENTERED IN FORCE	GROUNDS FOR INTRODUCTION (STATE WHETHER NEW LAW OR AMENDMENT TO EXISTING LAW)	PARTICULARS
	ANSF decree No 13/2010 of 19 November 2010	15/01/2011	Amendments to RFI order 31 of 25 October 2002	Amendments to RFI order No 31 of 25 October 2002 'Shunting keys in the PdS's of the lines operated with SCC'.
	ANSF decree No 15/2010 of 13 December 2010	27/04/2011	Reorganisation of regulations.	Regulations for technical approval and for the operation of work vehicles. (ANSF memo 03845/11) – Updating of regulatory texts.
	ANSF decree No 16/2010 of 22 December 2010	22/06/2011	Reorganisation of regulations governing the performance of railway infrastructure works	Reorganisation of the service regulations regulating the conditions for performance of the works on the railway infrastructure and the relative monitoring and control activities (ANSF memo 04212/11) (Updating RCT and DET (Remote control regulations)).



[Italian National Safety Authority]

Annex E: Safety certificates and authorisations – 2010

ANNEX E: Development of safety certification and Safety Authorisation

Safety certificates pursuant to Directive 2001/14/EC		
Number of safety certificates issued pursuant to Directive 2001/14/EC held by the Railway Undertakings in 2010	In Italy	31
	in another State	0

Number of safety certificates pursuant to Directive 2004/49/EC				
		New	Updated/amen- ded	Renewed
Number of valid safety certificates (Part A) held by the Railway Undertakings in 2010 at	In Italy	0	0	0
	in another State	0	0	0
Number of valid safety certificates (Part B) held by the Railway Undertakings in 2010 at	In Italy	0	0	0
	in another State	0	0	0

Number of safety certificate applications pursuant to Directive 2004/49/EC presented in 2010 at registration stage					
			A	R	P
Number of safety certificate	In Italy	new certificates	1	0	3
		updated/amended certificates	4	0	17
		renewed certificates	6	0	25
	in another State	new certificates	0	0	0
		updated/amended certificates	0	0	0
		renewed certificates	0	0	0
Number of safety certificate	In Italy	new certificates	1	0	3
		updated/amended certificates	4	0	17
		renewed certificates	5	0	26
	in another State	new certificates	0	0	0
		updated/amended certificates	0	0	0
		renewed certificates	0	0	0

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

Number of Safety Authorisations pursuant to Directive 2004/49/EC			
	New	Updated/ amended	Renewed
Number of valid Safety Authorisations held by the Infrastructure Managers in 2010 at registration stage in your Member State	0	0	0

Number of Safety Authorisation requests pursuant to Directive 2004/49/EC				
		A	R	P
Number of Safety Authorisations presented by the Infrastructure Managers in 2010 at	new authorisations	0	0	0
	authorisations updated/amended	0	0	0
	authorisations renewed	0	0	0

A = application accepted, the authorisation has already been issued

R = applications rejected, no authorisation has been issued

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