

**Network of National Safety Authorities** 



# Annual Safety Report 2010 Finnish Transport Safety Agency

**Network of National Safety Authorities** 

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# A. NSA Annual Safety Report – Finnish Transport Safety Agency (former Finnish Rail Agency)

This is a report on Finnish railway safety and the Finnish Transport Safety Agency's activities during the year 2010. The report is published on Finnish Transport Agency's website. The report is also given to the European Railway Agency as well as to the Finnish Ministry of Transport and Communications. Finnish Rail Agency Merged into Finnish Transport Safety Agency in the beginning of 2010.

#### A.1 Scope of the report

This report gives a view on the railway safety in the railway system in Finland and activities of the Finnish Transport Safety Agency, Infrastructure Manager and Railway Undertaking during the year 2010.

#### **B. Introductory Section**

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

The purpose of this report is to give information on railway safety and the activities of the Finnish Transport Safety Agency, Infrastructure Manager and Railway Undertaking to the public, to ERA and to the Finnish Ministry of Transport and Communications.

Data collection for Annual Safety Report went rather well and nearly all of the needed data was available. There were some shortages in the coverage of data, e.g. costs of all accidents are not collected in Finland.

#### **B.2 Railway Structure Information (Annex A)**

The map of the Finnish railway network can be found in Annex A.1.

In year 2010 Finland had one Infrastructure Manager, The Finnish Transport Agency and one Railway Undertaking, VR-Group Ltd, which operates both passenger and freight traffic. Detailed information on Infrastructure Manager and Railway Undertaking is in Annex A.2.

#### **B.3 Summary – General Trend Analysis**

When measured by the number of different types of accidents or by the number of fatalities the railway safety has remained about the same level in Finland during the last 10 years.

The number of derailments in train traffic has decreased to near zero because many of the tracks have been upgraded. In 2010 there was one derailment in Finnish train traffic when a commuter train arriving to Helsinki derailed on April 26<sup>th</sup>. The overall numbers of fatalities and injuries in railway accidents decreased slightly from 2009.

During the years 2000 – 2008 the number of level crossing accidents in Finland varied around 50 per year. In 2009 and 2010 the number of level crossing accidents has decreased from previous years to 34 in 2009 and 33 in 2010.

The number of track buckles was constantly decreasing from the year 2006 to the year 2009. The number of track buckles rose significantly in the year 2010 because of the extraordinary hot

summer. The number of signals passed at danger nearly/more than doubled in 2010. One reason to the rise in number of SPAD's was the exceptionally difficult winter weather, which caused problems with the use of breaks. The number of hot box signals grew to 104 from 65 in 2009 and 80 in 2008. The reasons for this aren't thoroughly known but difficult winter conditions explain the remarkable rise at least partly.

In 2010 there weren't any major changes in Finnish railway legislation and regulation. The renewal of the Railway Act which started in 2009 continued throughout the year 2010 but it's coming into force was postponed to year 2011. In 2010 Decree concerning the Safety and Interoperability of the Railway System (750/2006) was amended and 5 new NSA regulations were given.

In 2010 Finnish Transport Safety Agency Railways department carried out inspections from which it gave out 30 inspection reports. Targets of supervision included infrastructure related to transportation of dangerous goods on private railways, placing into service, track signals and level crossings. Finnish Transport Safety Agency didn't carry out audits during 2010.

During the year 2010 there were no changes in safety certificates or safety authorisations.

#### C. Organisation

#### C.1 Introduction to the organisation

On January 1<sup>st</sup> 2010 Finnish Rail Agency, Finnish Civil Aviation Authority, Finnish Vehicle Administration and safety functions of the Finnish Maritime Administration were merged to form the Finnish Transport Safety Agency. At first steps of Finnish Transport Safety Agency former Finnish Rail Agency formed a division with parts of former Finnish Vehicle Administration. Soon the division were reorganised and now the former Finnish Rail Agency forms the Railways department in Finnish Transport Safety Agency's Regulation and Supervision. The organization charts of Finnish Transport Safety Agency and its Regulation and Supervision division can be found in Annex B.

Despite the merger the role and tasks of the Railways department remained the same. Finnish Transport Safety Agency's Railway department's main task as a national safety authority is to reinforce railway safety in Finland. Other tasks include preparation of both EU and national legislation, implementation of the TSI's, technical approval of rolling stock and infrastructure, and issuing Safety Certificates and Safety Authorisations. The Railway department gives instructions for health inspections as well as competence requirements and training for staff working on the railways.

The structure of the Railways department was also reorganised during 2010. The Railways department is now divided in two units: the Railway Safety unit and the Railway Regulation unit. Both units are divided into three groups. The Railway Safety unit is divided into Placing into Service group, Vehicle group and Safety Management group. The Railway Regulation unit is divided into Interoperability group, Regulatory group and Competency group.

Finnish Transport Safety Agency is led by director general Mr. Kari Wihlman, who was appointed to the post in January 2010. Regulation division is led by director general Mr. Tuomas Routa. Mr. Yrjö Mäkelä was appointed as director of the Railways department after former director Mr. Kari Alppivuori was appointed as a director of transportation safety in Finnish Transport Safety Agency. Mrs. Heidi Niemimuukko is Head of the Railway safety unit and Mrs. Henrika Räsänen is Head of the Railway regulation unit. There are approximately 513 employees in Finnish Transport Safety Agency and 28 of them work at the Railways department.

# C.2 Organisational flow – relationship between the NSAs and other national bodies

The Railways department as a part of the Finnish Transport Safety Agency works under the Ministry of Transport and Communications. It cooperates closely with the Finnish rail sector, the Competition Authority and Accident Investigation Board. Relationship diagram is in Annex B.

#### D. The development of railway safety

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

Finnish Rail Agency has set National Safety Targets 2007-2010 for railway stakeholders with the letter dated on January 24th, 2007. The NST's were general and qualitative. No quantitative targets have been set. The general long term targets were

- Nobody needs to die or be seriously injured in railway traffic or working at railways if they do not violate the rules,
- Safety is systematically taken account in all activities and organisations,
- Train traffic safety in Finland remains on the high European level and
- No serious damages occur to environment or infrastructure or rolling stock.

All the national long term targets were met in 2010.

There was one safety measure by the RU which was triggered by an accident (Table D.1.1).

*Table D.1.1 – Safety measure triggered by an accident* 

| Accident v                      | vhich trigg | gered the measure   | Safety measure decided  |
|---------------------------------|-------------|---|---|
| Date                            | Place       | Description of the event  |   |
| January<br>4 <sup>th</sup> 2010 | Helsinki    | Four empty passenger cars that had become separated from a shunting unit collided with a rail barrier at the end of the track at the Helsinki Central Railway Station at a speed of approximately 35 km/h. After breaking the rail barrier the passenger cars hit the wall of the office building at the end of the track. The accident was caused by the coupling loop coming loose from the hook during the pushing movement. The accident was caused because a conductor released the air brakes of a shunting unit which was broken into two. The conductor didn't know that the shunting unit was broken into two. | After the accident the RU gave an internal instruction concerning the release of air brakes in Helsinki. According the instruction air brakes can be released only if there is a locomotive or another unit with air brakes between Helsinki Central Railway Station and the rolling stock in question. |

As in earlier years many of the safety measures by the IM were aimed to improve the safety of maintenance work sites in general (Table D.1.2). For example few safety measures were targeted to better the information flow between maintenance work sites and traffic control. IM also started upgrading its safety management system and few of the safety measures are connected to that.

*Table D.1.2 – Safety measures with other triggers* 

| Table D.1.2 – Safety measures with other triggers        |   |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|
| Safety measure decided                                   | Description of the trigger of the measures    |  |  |  |  |  |  |
| (IM) Development of Rail Maintenance                     | Need to improve the locating of rail mainte-  |  |  |  |  |  |  |
| Site –form and preparation and intro-                    | nance sites and the communication be-         |  |  |  |  |  |  |
| duction of a new form                                    | tween traffic control and rail maintenance    |  |  |  |  |  |  |
|  | sites   |  |  |  |  |  |  |
| (IM) Development of restriction to                       | Need to ensure track eligibility for traffic  |  |  |  |  |  |  |
| traffic –form  | especially after rail maintenance             |  |  |  |  |  |  |
| (IM) Development of shunting safety                      | Several accidents and incidents in shunting,  |  |  |  |  |  |  |
| <ul> <li>more precise safety instructions for</li> </ul> | shunting can endanger also train traffic and  |  |  |  |  |  |  |
| traffic control of shunting                              | rail maintenance                              |  |  |  |  |  |  |
| (IM) Reduction of vandalism locally –                    | Vandalism is centralised on certain places,   |  |  |  |  |  |  |
| co-operation with different parties,                     | among others in Tampere, Lahti and            |  |  |  |  |  |  |
| clearing of trackside bushes, fencing,                   | Jyväskylä                                     |  |  |  |  |  |  |
| monitoring cameras, cleaning up rail-                    | -5  |  |  |  |  |  |  |
| way areas  |   |  |  |  |  |  |  |
| (IM) Improve the quality of traffic                      | Ambiguous traffic communication causes        |  |  |  |  |  |  |
| communication – enhance specified                        | confusions between traffic control and        |  |  |  |  |  |  |
| •  |   |  |  |  |  |  |  |
| form by training and supervision                         | shunting foremen or persons in charge of      |  |  |  |  |  |  |
| (IM) Define cofety distances for dif                     | rail maintenance                              |  |  |  |  |  |  |
| (IM) Define safety distances for dif-                    | Safe working distance to operated track       |  |  |  |  |  |  |
| ferent kinds of machines – directions                    | varies between machines – e.g. falling        |  |  |  |  |  |  |
| in the next TURO update                                  | crane or excavator can cause incident even    |  |  |  |  |  |  |
|  | if it's located quite far from railway        |  |  |  |  |  |  |
| (IM) Introduction of rail maintenance                    | Structure clearance is too troublesome and    |  |  |  |  |  |  |
| gauge – directions in TURO update                        | non-specific when estimating the safe dis-    |  |  |  |  |  |  |
|  | tance to track for rail maintenance           |  |  |  |  |  |  |
| (IM) Development of safety instruc-                      | Several cases where machines have as-         |  |  |  |  |  |  |
| tions and procedures for machines                        | cended to track without a permit, one of      |  |  |  |  |  |  |
| ascending to track – considered e.g.                     | the most serious accident scenarios           |  |  |  |  |  |  |
| in TURO update   |   |  |  |  |  |  |  |
| (IM) Permission to rail maintenance is                   | The quality of used Rail Maintenance Forms    |  |  |  |  |  |  |
| denied when Rail Maintenance Form is                     | has proven to be insufficient, forms are      |  |  |  |  |  |  |
| insufficiently filled – guidance to traf-                | insufficiently filled and the required appen- |  |  |  |  |  |  |
| fic control  | dix is usually missing                        |  |  |  |  |  |  |
| (IM) An extra module is added to                         | Deficiencies in action on state owned rail    |  |  |  |  |  |  |
| training of persons in charge of rail                    | network, especially problems in locating,     |  |  |  |  |  |  |
| maintenance on state owned rail net-                     | blocking and protecting rail maintenance      |  |  |  |  |  |  |
| work railway – a requirement consid-                     | sites. NSA's regulations concerning training  |  |  |  |  |  |  |
| ering this is added to TURO-guidance                     | doesn't ensure know-how on state-owned        |  |  |  |  |  |  |
| in the next update                                       | track   |  |  |  |  |  |  |
| (IM) Update the traffic control manual                   | Safety deficiencies on traffic controllers    |  |  |  |  |  |  |
| , , , , , , , , , , , , , , , , , , ,                    | actions, e.g. wrongly set routes              |  |  |  |  |  |  |
| (IM) Improve the reporting of safety                     | Many safety deviations in shunting are        |  |  |  |  |  |  |
| deviations in shunting – procedure                       | never reported                                |  |  |  |  |  |  |
| description in new safety manage-                        | The vol. reported                             |  |  |  |  |  |  |
| ment system  |   |  |  |  |  |  |  |
| (IM) Update of safety management                         | Infrastructure managers old safety man-       |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |
| system correspond to new organisa-                       | agement system doesn't correspond the         |  |  |  |  |  |  |
| tion (2011) and regulation                               | new organisation and the new regulation       |  |  |  |  |  |  |
| (IM) Improve processing and analys-                      | The processing and analysing of safety de-    |  |  |  |  |  |  |
| ing of safety deviation reports as a                     | viation reports is inadequate, only a part of |  |  |  |  |  |  |
| part of new incident management                          | incident data can be used                     |  |  |  |  |  |  |
| system   | Toolston marketing to be a first to be        |  |  |  |  |  |  |
| (IM) Update of safety training mate-                     | Training material and data has to be up-      |  |  |  |  |  |  |
| rial   | dated to correspond new organisation          |  |  |  |  |  |  |

| (IM) Update specialwork guide –part of safety management system update  | Specialwork guide is now longer part of TURO-guidance, and it has to be updated in                  |
|---|---|
|   | any case  |
| (IM) Update procedures and guidance   | Update needed because of the organisation   |
| of emergency management   | reform  |
| (IM) Prepare risk evaluation and assessment guidance that complies with commission regulation 352/2009 – as a part of safety management system update | Current risk assessment procedure doesn't comply with commission regulation 352/2009                |
| (RU) The correct working methods and punctuality of traffic communication are emphasized in training and subjects of audits                           | Organisations safety targets concerning people working on railways and traffic control were not met |

#### D.2 Detailed data trend analysis

Finnish Transport Safety Agency has had difficulties in making statistical trend analysis of the accident and incident data. This is mainly because Finnish Transport Safety Agency doesn't get extensive data of railway accidents and incidents from the rail sector. Finnish Transport Safety Agency has also problems on keeping the NSA's accident and incident database up to date because of lacking resources. Also in most cases the numbers of the accidents and incidents are too small to make reliable statistical analysis. Instead of prober statistical trend analysis Finnish Transport Safety Agency has compared the numbers of common safety indicators to the ones from previous years and made visual evaluation on the possible trends.

The most serious railway accident in Finland on 2010 occurred on January 4<sup>th</sup> when four empty passenger cars collided to a rail barrier at the Helsinki Central Railway Station at a speed of approximately 35km/h. After crushing the rail barrier the cars hit the wall of an office building right behind the barrier. The four passenger cars broke away when the coupling loop came loose from the hook while the train was shunted to its departure track. The accident was caused because a conductor released the air brakes of a shunting unit which was broken into two. The conductor didn't know that the shunting unit was broken into two. One of the three people in the collided cars got slightly injured. One of the cars was badly damaged. The office building suffered substantial material damage. Also the rail infrastructure was damaged. The collision caused damages worth €825 000.

Another serious accident happened when a commuter train derailed on April 26<sup>th</sup> in Helsinki. A commuter train was derailed at a turnout while a turnout underneath the train turned. There were no personal injuries but the derailed unit and the track equipment were damaged. The immediate expenses of damage were worth €513 000. The turnout turned underneath the train because traffic controller issued emergency commands from signal box to a turnout other than the one intented. Traffic control was using shunting routes for which emergency commands could be issued because insulated track section faults had been common at Helsinki railway station. Methods with stripped security were being used so as not to disturb the flow of traffic. In the investigation report the investigation commission recommends that the party responsible for the upkeep of the track should systematically monitor and, when required, improve track maintenance and techniques for determining track availability so that safety is not compromised.

In 2010 the number of significant accidents was 23 and so it stayed at the same level with three preceding years when numbers ranged from 21 to 27.

Number of significant railway accidents in Finland:

| 2007 | 21 |
|------|----|
| 2008 | 27 |
| 2009 | 26 |
| 2010 | 23 |

Source: The Finnish Railway Statistics

There weren't any big changes in the numbers of main accident categories between 2009 and 2010. The number of derailments decreased from 2 to 1. In 2010 there were 10 accidents to persons caused by rolling stock in motion as there were in 2009 also. Numbers of collisions and fires in rolling stock remained at zero for the third year in the row. Number of accidents classified as "others" was three and it has ranged between 0-3 during last four years.

In 2010 there were 9 significant level crossing accidents and in the four preceding years the number has varied between 9 and 12. Although the number of significant level crossing accidents has stayed at the same level for the recent years the total number of level crossing accidents has decreased (figure 1). Total number of level crossing accidents varied between 44 and 64 in 2000 and 2009. In 2009 the number of level crossing accidents decreased to 35. In 2010 the good development continued and the number of level crossing accident decreased slightly to 33. The overall road traffic safety in Finland has improved remarkably during last ten years as the total number of fatalities in road traffic has decreased from around 400 per year to less than 300 per year. The decreasing number of level crossing accidents is a part of that trend.



Figure 1. Level crossing accidents, fatalities and injuries in level crossing accidents during 2000-2010 on the Finnish rail network.

The number of injuries in level crossing accidents also decreased in 2010 but the number of fatalities stayed at the same level with the previous years.

The accidents were quite scattered around the rail network (see figure in annex F.). Two level crossing accidents occurred in the same level crossing, which is reported to be dangerous because of its poor sight distances.

The number of fatalities in railway accidents in 2010 was 13. In the number of fatalities in railway accidents a slightly decreasing trend can be seen during the last seven years as the numbers have decreased from 24 in 2004 and 22 in 2005 to 14 in 2009 and 13 in 2010. The figures show some positive development but still the random variation can explain the trend. Most of the fatalities occur to level crossing users (8 in 2010) and trespassers (5 in 2010). From 2006 to 2010 there have been 89 fatalities on Finnish railways and 86 of those have happened to level crossing users and unauthorised persons. In 2010 there were 8 fatalities in level crossing accidents in Finland. The number has varied between 12 and 4 for the last decade (figure 1).

Total number of rail related suicides is always difficult to count. In 2010 Finnish Transport Safety Agency participated in a study concerning fatal train-pedestrian collisions in Finland during years 2005-2009. By writing this the study has been published. According to the study the most applicable data on suicides comes from the RU. According to RU's statistics numbers of suicides per year have varied between 42 and 57 during 2005-2009. RU's estimate of the number of suicides on 2010 is 44 so there is not at least any remarkable trend in the number of suicides.

The number of serious injuries was 8 in 2010 (10 in 2009, 6 in 2008, 3 in 2007 and 13 in 2006). The information concerning the condition of a casualty is at this point based on eye witness reports. Thus the numbers cannot be considered fully reliable. The reliable information would only be available directly from the hospitals or police.

IM's and RU's active work to bring down the number of wrongly set routes succeeded partially as the number of wrongly set routes decreased from 116 in 2008 and 102 in 2009 to 91 in 2010. Despite the decrease the number of wrongly set routes didn't meet its target which was 76 or less. As in last year many of the wrongly set routes happened when trains were directed to reserved tracks because of difficulties in locating rail maintenance sites. IM has reacted to this problem and some of the safety measures represented in table D.1.2 were aimed to improve this situation.

The number of signals passed at danger increased dramatically from 20 in 2009 to 35 in 2010. The number of SPAD's varied between 18 and 30 in four previous years. One reason to the rise in the number of SPAD's was the exceptionally difficult weather conditions on winter, which caused problems with the use of breaks. But there were quite many SPAD's in the summer too, so winter doesn't explain the rise completely. Passing distances were usually only few meters and there were no concrete threads for collisions. However, we should keep a keen eye on the development of SPAD numbers as they might indicate problems in technical systems or management systems.

The high number of wrongly set routes and SPAD's remain a problem on Finnish railways. Many of these situations occur in accordance with maintenance work. In 2010, VTT (Technical Research Centre of Finland) completed the second part of two parted study concerning traffic control and rail maintenance works. Safety measures proposed by the study concerned e.g. training, guidance, improvement of the control of traffic controllers work load and improvement of the quality of work plans.

The numbers of track buckles and broken rails rose significantly in 2010. The number of track buckles had been constantly decreasing from 10 to 1 between 2006 and 2009 but in 2010 the number increased to 14. The main reason for the sudden increase was the extraordinary hot

summer in Finland in 2010. The summer of 2010 was the hottest summer ever recorded in Finland. The number of broken rails rose to 50 as it had varied between 19 and 25 on years 2007 to 2009. The harsh winter weather in 2010 was a major reason for the increase in the amount of broken rails although it doesn't explain the whole number because many of broken rails occurred in the summer.

At the end of 2010 there was 3833 level crossing on Finnish rail network. On 2009 the number of level crossings was 4061. So the number of level crossings decreased by 228 in 2010. The number is remarkably good because the long time average decrease is about 50 level crossings per year. Track upgrade works mainly in Northern and Eastern Finland caused major deal of the decrease in the number of level crossings. The big decrease is also partly due to closing of track between Kiukainen and Säkylä. 817 of the 3833 level crossings had warning devices on them. Over 80 % of the level crossings are private road crossings which typically are non-paved roads with very low traffic volume (1-10 vehicles per day).

In 2010 82% of state owned rail network was equipped with ATP. That includes almost all the tracks with passenger traffic or mixed traffic and the main freight traffic lines. The traffic volumes on tracks without ATP are very low. Almost all of the traffic (99% of traffic during 2010) is operated on ATP lines.

The work for collecting the information on the costs of all accidents with the method described in the revision of Annex I of the Safety Directive is still ongoing in Finland. The Safety directive is implemented in Finland but the costs of all accidents are still not collected. A lot of work needs to be done before Finland can produce robust information on the costs of all accidents. Finnish Transport Safety Agency's Railways department is planning to start a work group in collaboration with other railway actors to create common instructions for collecting information on accident costs on the year 2012. At this point we are able to give out an estimate for costs of significant accidents. The costs of significant accidents to rolling stock were 855 230 €in 2010 (as reported by the Railway Undertaking).

#### D.3 Results of safety recommendations

In 2010 Accident Investigation Board of Finland started 6 level B (accident or serious incident) rail investigations. Four of those investigations considered level crossing accidents of which three were fatal. The remaining two investigations considered accidents in Helsinki (collision and derailment) which were mentioned earlier in this report. The Accident Investigation Board started also 2 level C (incident, damage or minor accident) investigations. These investigations involved a shunting derailment which included dangerous goods and a derailment of three freight wagons.

Accident Investigation Boards usually represents couple of safety recommendations as conclusions of investigations. Concerning the accidents and incidents which happened in 2010 Accident Investigation Board gave 11 safety recommendations. These recommendations consider e.g. orientation given to new employees, guidance about certain tasks and removal of certain level crossings. One of the safety recommendations given concerning accidents in 2010 is already put in to action. This safety recommendation was given due to accident on a private siding where a shunting unit was bumped against a railbarrier stop causing a derailment of five tank wagons. The recommendation stated that instead of pushing long and heavy rows of wagons should be pulled into the unloading terminal in this certain private siding.

During 2000-2009 Accident Investigation Board gave 147 safety recommendations of which 44% have been executed. The execution of recommendations often takes time, therefore work with many recommendations is still unfinished. Accident Investigations Board aims to execution rate of 55% or bigger.

#### E. Important changes in legislation and regulation

The Railway Act (555/2006) was not amended in 2010. However, the Decree concerning the Safety and Interoperability of the Railway System (750/2006) given under the Railway Act was amended. The amendment (864/2010) implemented the Commission Directive 2009/149/EY in regard safety indicators. Furthermore, the amendment specified the procedure and data for railway undertakings and infrastructure managers to notify in regard of accidents and incidents to the Finnish Transport Safety Agency.

Finnish Transport Safety Agency's Railways department gave five NSA regulations in 2010. Two of them were new regulations. NSA Regulation on Training Programmes for Persons Executing Traffic Safety Tasks (TRAFI/14723/03.04.02.13/2010) implemented partly Train Driver Directive and OPE-TSI. NSA Regulation on Rules for Russian Railway Personnel in Finnish Railway System (Trafi/24897/2010) concerns cross-border traffic with Russia. The other NSA regulations given in 2010 were merely updating regulations (see more Annex D).

#### F. The development of safety certification and authorisation

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

### 1.1 Starting date for issuing Safety Certificates according to Article 10 of Directive 2004/49/EC

The legislation made possible to issue Safety Certificates according to Article 10 of directive 2004/49/EC since 1<sup>st</sup> of September 2006 (The Railway Act 555/2006). The first Safety Certificate after this date was issued to VR Ltd on 27<sup>th</sup> April 2007.

VR Limited Liability Company was merged to VR-Group Ltd. on January 1st 2010. VR Limited Liability Company's Safety Certificate was endorsed to VR –Group Ltd. 1<sup>st</sup> of January 2010 with no significant changes to the certificate.

## 1.2 Starting date for issuing Safety Authorisations according to Article 11 of Directive 2004/49/EC

The legislation made possible to issue Safety Authorisations according to Article 11 of directive 2004/49/EC since 1<sup>st</sup> of September 2006 (The Railway Act 555/2006).

The only Safety Authorisation was issued to Finnish Rail Administration in 2007 and it's been valid since 1<sup>st</sup> May 2007. Finnish Rail Administration, Finnish Road Administration and parts of Finnish Maritime Administration merged in the beginning of 2010 to form Finnish Transport Agency. The merger didn't cause changes to Safety Authorisation.

# 1.3 Availability of national safety rules or other relevant national legislation to Railway Undertakings and Infrastructure Managers

National safety rules and legislation to Railway Undertakings and Infrastructure Managers can be found on the www.finlex.fi website which is maintained by the Finnish ministry of justice and it can be used free of charge. Links to the rules and relevant legislation are also on the Finnish Transport Safety Agency's website.

Further information on the railway safety rules and legislation can be requested from:

rautatiet.saadoskasikirja@trafi.fi

#### F.2 Numerical data

See Annex E.

#### F.3 Procedural aspects

#### 3.1 Safety Certificates Part A

3.1.1 Reasons for updating/amending Part A Certificates

Finnish Railway Act has recognised separate Part A and Part B Certificates since the beginning of 2010. No updates or amendments to safety certificates were done in 2010.

The only case of Safety Certificate amendment was endorsing VR Limited Liability Company's Safety Certificate to VR-Group Ltd. due to a change in their organization.

3.1.2 Main reasons if the mean issuing time for Part A Certificates was more than the 4 months foreseen in Article 12(1) of the Safety Directive

Not applicable: no Safety Certificates were issued in 2010.

3.1.3 Overview of the requests from other National Safety Authorities to verify/access information relating the Part A Certificate of a Railway Undertaking that has been certified in your country, but applies for a Part B certificate in the other Member State

Not applicable: no Safety Certificates were issued in 2010.

3.1.4 Summary of problems with the mutual acceptance of the Community wide valid Part A Certificate

There were no cases of mutual acceptance in Finland on 2010.

3.1.5 NSA Charging fee for issuing a Part A Certificate

In 2010 the fees were collected by the Finnish Transport Safety Agency based on the Ministry of Transport and Communications degree on Finnish Transport Safety Agency's fees (1696/2009) which came in to force on January 1, 2010. The hourly fee for issuing a Part A Certificate in 2010 was 125 €

3.1.6 Summary of the problems with using the harmonised formats for Part A Certificates, specifically in relation to the categories for type and extent of service

Finnish Transport Safety Agency did not receive any reports of problems using the harmonized formats for Safety Certificates. Finnish Transport Safety Agency didn't recognise any problems with the use of harmonised formats for Safety Certificates.

3.1.7 Summary of the common problems/difficulties for the NSA in application procedures for Part A Certificates.

The Finnish Rail Agency received 3 applications for Safety Certificates during September – October 2009. These applying companies were new railway undertakings and did not have any operation. The applications were still pending in the first half of 2010. The Agency had difficulties in assessment work due to lack of resources and the organizational change it was going through. The applying companies also had difficulties to prepare such safety management systems that would fulfil the requirements of safety management. Especially the applying companies had problems in proper procedure description.

According to the Railway Act Finnish Transport Safety Agency had to do the decision of the Safety Certification in 12 months from the receiving of applications. Because the applications addressed to the Agency didn't cover all required information the decisions would have been negative. The applying companies asked the Agency to stop the assessment process before the

closing of the 12 months period. This way the applying companies could get a sort of time-out and an opportunity to improve their application material. All three applying companies renewed their applications during the end of 2010 and in the beginning of 2011.

3.1.8 Summary of the problems mentioned by Railway Undertakings when applying for a Part A Certificate

The Finnish Railway Act has recognised separate Part A and Part B Certificates from the beginning of 2010.

The companies that started their application process in 2009 and continued it in 2010 expressed that the requirements for safety management systems were too demanding and Finnish Transport Safety Agency was too strict on its assessment work. The applying companies also expressed that further clarifications which Finnish Transport Safety Agency required were rather inaccurate.

3.1.9 Feedback procedure that allows Railway Undertakings to express their opinion on issuing procedures/practices or to file complaints

Representatives of the Finnish Transport Safety Agency and representatives of the applying companies meet frequently. Feedback is given and received in these occasions. Railway companies are also invited to participate in Finnish Transport Safety Agency's customer research, which is carried out once a year.

Complaints against all Finnish Transport Safety Agency's decisions can be filed to Helsinki Administrative Court.

#### 3.2 Safety Certificates Part B

3.2.1 Reasons for updating/amending Part B Certificates

The Finnish Railway Act has recognised separate Part A and Part B Certificates from the beginning of 2010.

No Part B Safety Certificates were updated/amended in 2010.

3.2.2 Main reasons if the mean issuing time for Part B Certificates was more than the 4 months foreseen in Article 12(1) of the Safety Directive

Not applicable.

3.2.3 NSA Charging fee for issuing a Part B Certificate

In 2010 the fees were collected by the Finnish Transport Safety Agency based on the Ministry of Transport and Communications degree on Finnish Transport Safety Agency's fees (1696/2009) which came in to force on January 1, 2010. The hourly fee for issuing a part B Certificate in 2010 was 125 €

3.2.4 Summary of the problems with using the harmonised formats for Part B Certificates, specifically in relation to the categories for type and extent of service

Finnish Transport Safety Agency did not receive any reports of problems using the harmonized formats for Safety Certificates. Nor did Finnish Transport Safety Agency recognise any problems with the use of harmonised formats for Safety Certificates.

3.2.5 Summary of the common problems/difficulties for the NSA in application procedures for Part B Certificates.

The Finnish Rail Agency received 3 applications for Safety Certificates during September – October 2009. These applications were still pending in the first half of 2010. Finnish Transport Safety Agency had some difficulties in processing the applications due to lack of resources and the organizational change it was going through.

3.2.6 Summary of the problems mentioned by Railway Undertakings when applying for a Part B Certificate

The Finnish Railway Act has recognised separate Part A and Part B Certificates from the beginning of 2010.

The applying companies did not bring up any problems relating especially to part B Certificates. However, the Finnish Transport Safety Agency noticed that some of the applying companies found our written instructions hard to understand.

3.2.7 Feedback procedure that allows Railway Undertakings to express their opinion on issuing procedures/practices or to file complaints

Representatives of the Finnish Transport Safety Agency and representatives of the applying companies meet frequently. Feedback is given and received in these occasions. Representatives of the railway companies are invited to participate in Finnish Transport Safety Agency's customer research, which is carried out once a year.

Complaints against all Finnish Transport Safety Agency's decisions can be filed to Helsinki Administrative Court.

#### 3.3 Safety Authorisations

3.3.1 Reasons for updating/amending Safety Authorisations

Not applicable: no such requests were made to the Finnish Transport Safety Agency in 2010.

3.3.2 Main reasons if the mean issuing time for Safety Authorisations was more than the 4 months foreseen in Article 12(1) of the Safety Directive

Not applicable.

3.3.3 Summary of the regular problems/difficulties in application procedures for Safety Authorisations

Not applicable.

3.3.4 Summary of the problems mentioned by Infrastructure Managers when applying for a Safety Authorisation

Not applicable.

3.3.5 Feedback procedure that allows Infrastructure Managers to express their opinion on issuing procedures/practices or to file complaints

Representatives of the Finnish Transport Safety Agency and those of the Finnish Transport Agency meet frequently and discuss cooperation between the two agencies. Feedback is given and received in these occasions. Representatives of the Finnish Transport Agency are invited to participate in Finnish Transport Safety Agency's customer research, which is carried out once a year.

Complaints against all Finnish Transport Safety Agency's decisions can be filed to Helsinki Administrative Court.

3.3.6 NSA Charging fee for issuing a Safety Authorisation

In 2010 the fees were collected by the Finnish Transport Safety Agency based on the Ministry of Transport and Communications degree on Finnish Transport Safety Agency's fees (1696/2009) which came in to force on January 1, 2010. The hourly fee for issuing a Safety Authorisation in 2010 was 125 €

#### G. Supervision of Railway Undertakings and Infrastructure Managers

#### G.1 Description of the supervision of Railway Undertakings and Infrastructure Managers

Supervision was carried out following the supervision strategy established for the Finnish Rail Agency. Finnish Transport Safety Agency's supervision strategy was published in the end of 2010 so it was not yet followed in 2010.

One employee of the Railways department is responsible for inspections. He usually makes inspections by himself but sometimes one or two colleagues join him according to the theme and objectives of the inspection. The RU and IM were informed of the forthcoming supervisions.

#### 1.1 Audits/Inspections/Checklists

Targets of supervision included infrastructure related to transportation of dangerous goods on private railways, placing into service, track signals and level crossings. Finnish Transport Safety Agency Railways department carried out inspections from which it gave out 30 inspection reports. Most of the inspections concerned infrastructure related to transportation of dangerous goods. Agency also carried out smaller inspection of which inspection reports were not given because the findings of inspection were discussed on the appropriate level during the inspection. These inspections concerned private railways and level crossings. Finnish Transport Safety Agency didn't carry out audits during 2010.

In 2010 RU carried out 18 of the planned 20 inspections. IM and RU carried out one shared audit which took place at September 6<sup>th</sup> in Kouvola. The audit considered ensuring the safety of rail maintenance work. The audit was made by checking documents and by interviewing traffic controllers. The audit group found flaws e.g. in the use of Rail Maintenance Site –forms. The audit group suggested that more attention has to be paid to the correct use of Rail Maintenance Site –forms. Audit group also suggested that traffic controllers should be better informed about the changes made to traffic control system during upgrading and that all errors concerning protecting of shunting routes should be examined and reported.

#### 1.2 Vigilance aspects/Sensitive points to follow-up by the NSA

The rising number of precursors creates a fear that the increasing economical pressures on the railway sector causes neglecting of safety issues. There is a risk that reached safety level is taken as a certainty and not enough is invested to safety work. It somehow seems that the safety management culture on Finnish railways is still its infancy. During constant economic pressures the actors of railway sector might not always see the virtues of proper safety management and instead sometimes seem to take it as a burden. Safety culture and safety management remain as an important aspect for the whole rail sector in Finland. There still is plenty of work to be done and the work needs to be done in a joint effort by all of the sectors players.

The scope of accident and incident reporting is a problem in Finland. Finnish Transport Safety Agency doesn't get reports from all accidents and incidents. The limited information content of reports is also a problem. In the coming years Finnish Transport Safety Agency will pay close attention to this problem with other actors of railway field.

# G.2 Description of the coverage of the legal aspects within the annual reports from the Infrastructure Managers and Railway Undertakings Availability of the annual reports before 30 June

The Finnish Railway Act does not include very specific requirements of the contents of the annual reports from the Infrastructure Manager and Railway Undertaking. RU, IM and NSA have agreed on a template that the annual safety report should follow. The NSA is planning to give a regulation considering annual safety reports by the end of year 2011.

RU returned its annual safety report well in advance on 8<sup>th</sup> of June. The information content of RU's annual safety report was scarce, but it covered most of the required information. IM returned its annual report on 28<sup>th</sup> June. IM's annual report was comprehensive. NSA needed some additional information for its annual safety report from both of the actors. NSA asked for the additional information by e-mail and both actors gave the needed information quickly.

|   |                           | Issued<br>Safety Cer-<br>tificates<br>Part A | Issued Safety Cer- tificates Part B | Issued<br>Safety Autho-<br>risations | Other<br>Activities<br>(To speci-<br>fy) |
|---|---------------------------|--|-------------------------------------|--------------------------------------|--|
| G.3 Number of inspections of RUs/IMs for 2010 | planned<br>carried<br>out | 0  | 0                                   | 0                                    | 30                                       |

|  |                | Issued<br>Safety Cer-<br>tificates<br>Part A | Issued<br>Safety Cer-<br>tificates<br>Part B | Issued<br>Safety Autho-<br>risations | Other<br>Activities<br>(To speci-<br>fy) |
|--|----------------|--|--|--------------------------------------|--|
|  | planned        | 0  | 0  | 0                                    | 0  |
| G.4 Number of audits of RUs/IMs for 2010 | carried<br>out | 0  | 0  | 0                                    | 0  |

# G.5 Summary of the relevant corrective measures/actions related to safety aspects following these inspections

No relevant corrective measured were issued related to inspections by Finnish Transport Safety Agency. The Finnish Transport Safety Agency only gave notes and preferences related to the inspections. The corrective measures suggested by RU and IM concerned correct use of Rail Maintenance Site –forms and improvement of information flow between traffic controllers and the players who upgrade traffic control system.

# G.6 Short summary/description of the complaints from IM concerning RU related to conditions in their Part A/Part B Certificate

This kind of complaints did not occur during 2010.

# G.7 Short summary of the complaints from RU concerning IM related to conditions in their authorisation

This kind of complaints did not occur during 2010.

# H. Reporting on the application of the CSM on risk evaluation and assessment

In 2010 CSM on risk evaluation and assessment was not applied in Finland. Application of CSM on risk evaluation and assessment has been mandatory on significant technical changes affecting vehicles or significant changes concerning structural subsystems since 19 July 2010. There have been above-mentioned significant changes on Finnish railways but those projects have been at an advanced stage of development on the date CSM regulation entered into force. Because of that the application of CSM on risk evaluation and assessment hasn't been mandatory and the actors have not applied it.

#### I. NSA Conclusions – Priorities

In 2010 Finnish Rail Agency merged with other transport safety authorities to form Finnish Transport Safety Agency. Finnish Transport Safety Agency continues the work of Finnish Rail Agency as National Safety Authority on Finnish railways. Major organizational changes which happened in 2010 and seem to continue in the following year also shall not affect the core functions of Finnish NSA.

In 2010 there weren't any major changes in railway safety in Finland and the overall safety remained at approximately same level than in previous years. Negative change was the rise in the number of precursors. The difficult weather conditions explain most of the rise but none all of it. The actors of Finnish railway sector have to find ways to minimize the effects of weather and other factors to the safety.

The actors of railway sector also have to concentrate on improving safety culture on Finnish railways despite the economic pressures which threaten to blur proper safety management. In fact safety management should be seen as one of organisations ways to handle constantly rising economic pressures.

#### J. Sources of information

- Accident Investigation Board of Finland website 30.8.2011, 14.9.2011
- eur-lex.europa.eu
- Finnish Railway Statistics 2010
- The Finnish Transport Agency Annual report 2010
- The Finnish Transport Agency Annual Safety report 2010
- The Finnish Transport Agency Annual Safety report 2010 additional information received by e-mail 18.8.2011
- Trafi electrical document management system (Trafi Tweb)
- Statistics Finland
- VR Group Ltd Annual Safety Indexes 2010
- VR Group Ltd Annual Safety report 2010

- VR Group Ltd Annual Safety report 2010 additional information received by e-mail 24.8.2011
- www.finlex.fi

#### K. Annexes

ANNEX A: Railway Structure Information

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

ANNEX C: CSIs data – Definitions applied

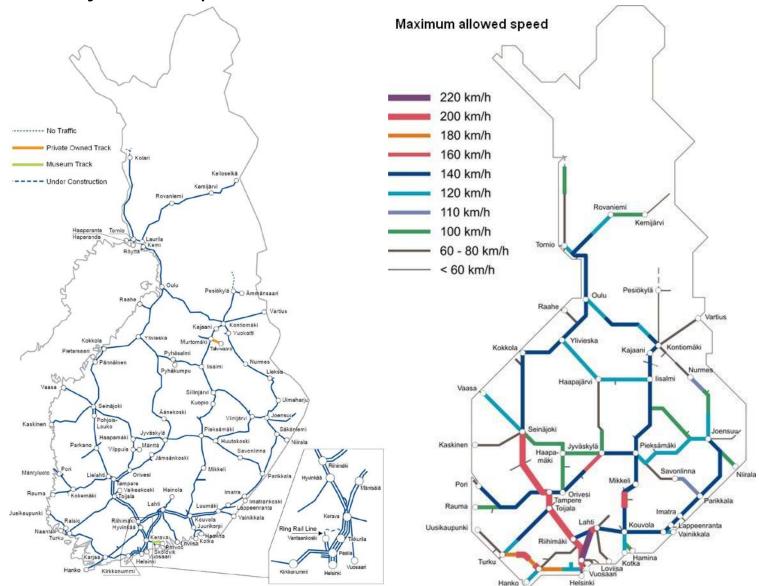
ANNEX D: Important changes in legislation and regulation

ANNEX E: The development of safety certification and authorisation – Numerical Data

ANNEX F: Level crossing accidents in year 2010 on the Finnish rail network

#### **ANNEX A: Railway Structure Information**

#### A.1 Finland's railway network map



#### **A.2** List of Railway Undertakings and Infrastructure Managers

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

| Name                           | Address                                | Websi-<br>te/Network<br>Statement<br>Link | Safety Autho-<br>risation (Num-<br>ber/Date) | Start date<br>commercial<br>activity | Total Track<br>Length/Gauge | Electrified Track<br>Length/Voltages | Total<br>Dou-<br>ble/Simpl<br>e Track<br>Length | Total<br>Track<br>Length<br>HSL | ATP<br>equipment<br>used | Number<br>of LC | Number of<br>main (light)<br>signals |
|--------------------------------|--|---|--|--------------------------------------|-----------------------------|--------------------------------------|---|---------------------------------|--------------------------|-----------------|--------------------------------------|
| Finnish<br>Transport<br>Agency | PO Box<br>33, Fi-<br>00521<br>Helsinki | www.liikenn<br>evirasto.fi                | RVI/1228/310/<br>2006<br>April 27th,<br>2007 | January<br>1 <sup>st</sup> , 1995    | 5,919<br>km/1524 mm         | 3,072 km/ 25kV                       | 570<br>km/5,349<br>km                           | 0 km                            | Bombardier               | 3,172           | 11,000                               |

#### A.2.2 Railway Undertaking(s)

| Na-<br>me           | Address                                 | Website  | Safety<br>Certifi-<br>cate<br>2001/14/<br>EC<br>(Num-<br>ber/Date<br>) | Safety<br>Certificate<br>A-B<br>2004/49/E<br>C (Num-<br>ber/Date) | Start date<br>commer-<br>cial activi-<br>ty | Traffic<br>Type<br>(Freight,<br>) | Number<br>of Loco-<br>motives | Number of<br>Rail-<br>cars/Multiple<br>Unit-sets | Number of<br>Coaches/Wago<br>ns (in com-<br>mercial traffic) | Number of<br>train driv-<br>ers/safety<br>crew | Volume<br>of pas-<br>senger<br>transport | Volume<br>of<br>freight<br>trans-<br>port |
|---------------------|---|----------|--|---|---|-----------------------------------|-------------------------------|--|--|--|--|---|
| VR<br>Grou<br>p Ltd | PO Box<br>488, Fi-<br>00101<br>Helsinki | www.vr.f | RVI/1219<br>/<br>310/200<br>6<br>April<br>27th,<br>2007                | RVI/1219/<br>310/2006<br>April 27th,<br>2007                      | July 1 <sup>st</sup> ,<br>1995 as<br>VR Ltd | Freight,<br>passenger             | 644                           | 418  | 11,535   | 1,688/3,21<br>2                                | 69,0<br>million<br>trips                 | 35,800<br>tons                            |

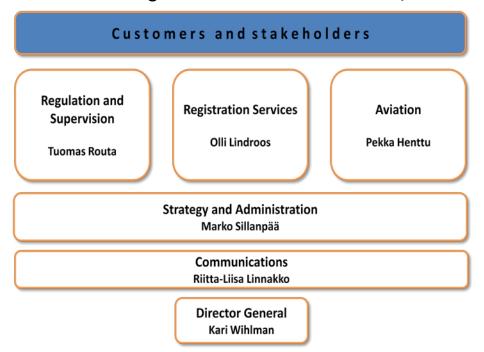
High Speed Line (Definition acc. Directive 96/48/EC)Automatic Train Protection Abbreviations: HSL

ATP

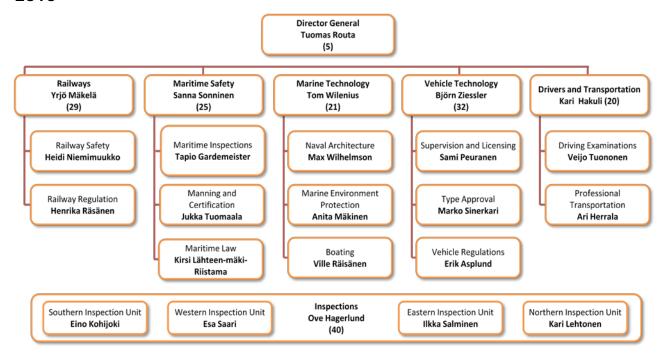
LC = Level Crossing

#### **ANNEX B: Organisation charts of the National Safety Authority**

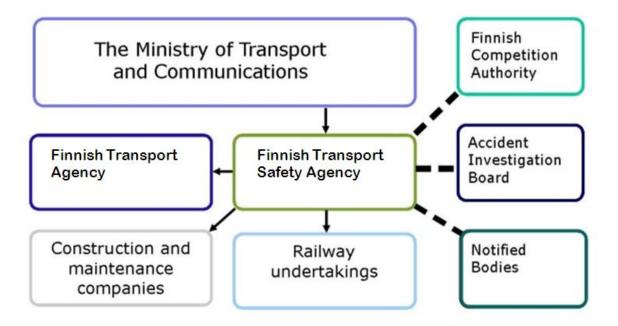
#### B.1 Chart: Internal organisation at the end of 2010 (Macro Level)



# B.2 Chart: Organisation of Regulation and supervision division at the end of 2010



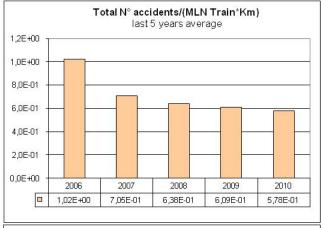
#### **B.3** Chart: Relationship with other National Bodies

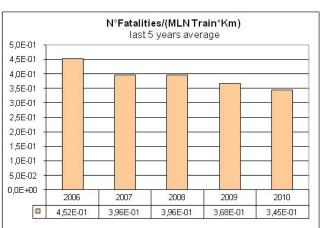


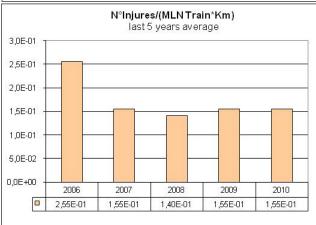
#### ANNEX C: CSIs data - Definitions applied

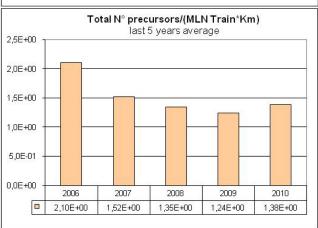
#### C.1 CSIs data

#### Performances at a glance







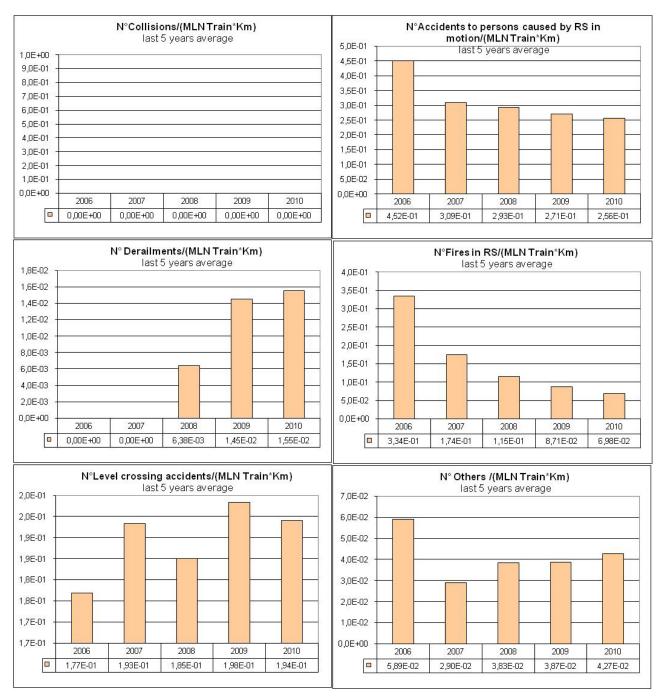




2007 report: values related to 2006.

2008 report: values related to the average between 2006 and 2007. 2009 report: values related to the average among 2006, 2007 and 2008. 2010 report: values related to the average among 2006, 2007, 2008 and 2009.

#### Accidents divided by type

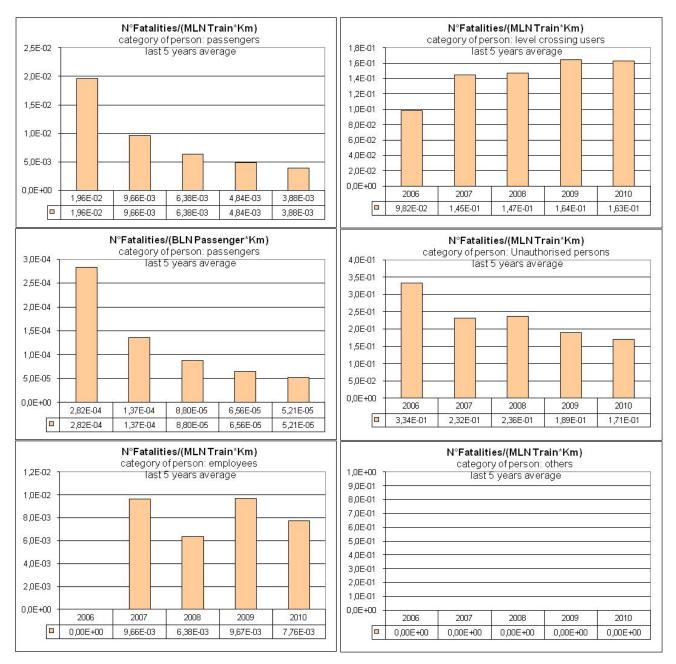


2007 report: values related to 2006.

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

2009 report: values related to the average among 2006, 2007 and 2008.

#### Fatalities divided by category of people involved



2007 report: values related to 2006.

2008 report: values related to the average between 2006 and 2007. 2009 report: values related to the average among 2006, 2007 and 2008. 2010 report: values related to the average among 2006, 2007, 2008 and 2009.

#### Injures divided by category of people involved

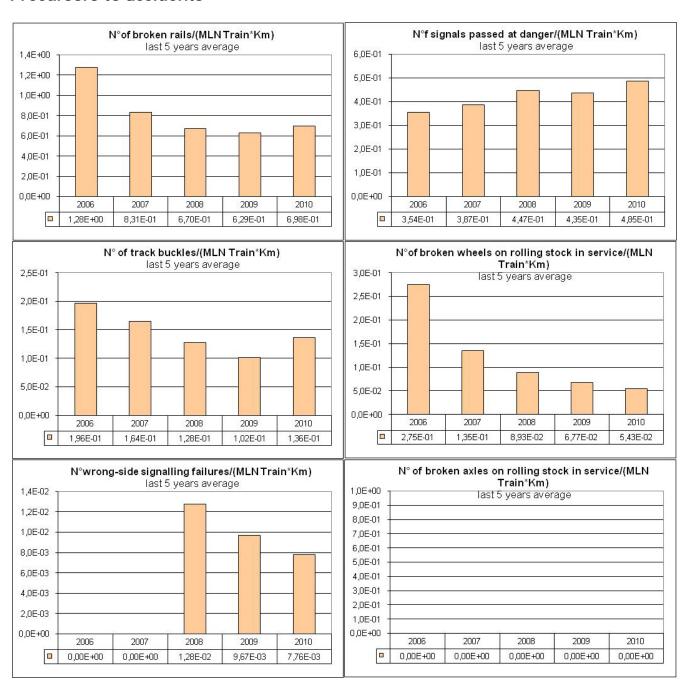


2007 report: values related to 2006.

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

2009 report: values related to the average among 2006, 2007 and 2008.

#### Precursors to accidents

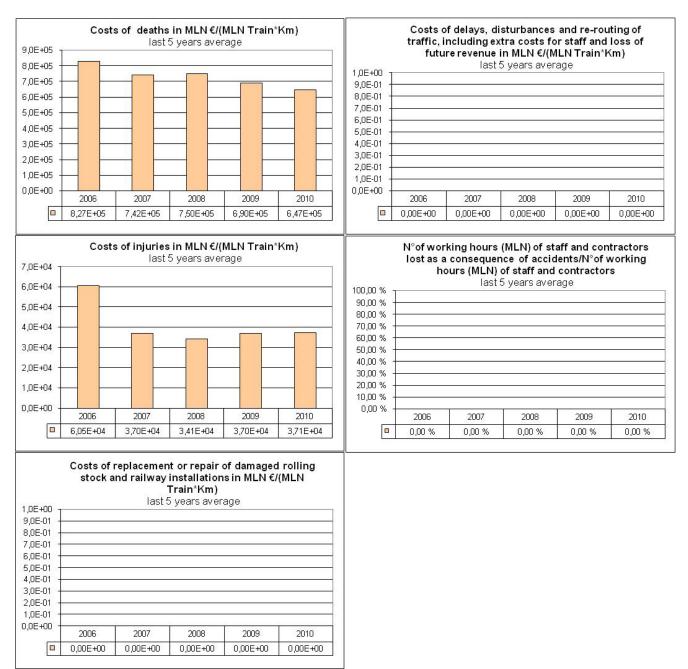


2007 report: values related to 2006.

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

2009 report: values related to the average among 2006, 2007 and 2008.

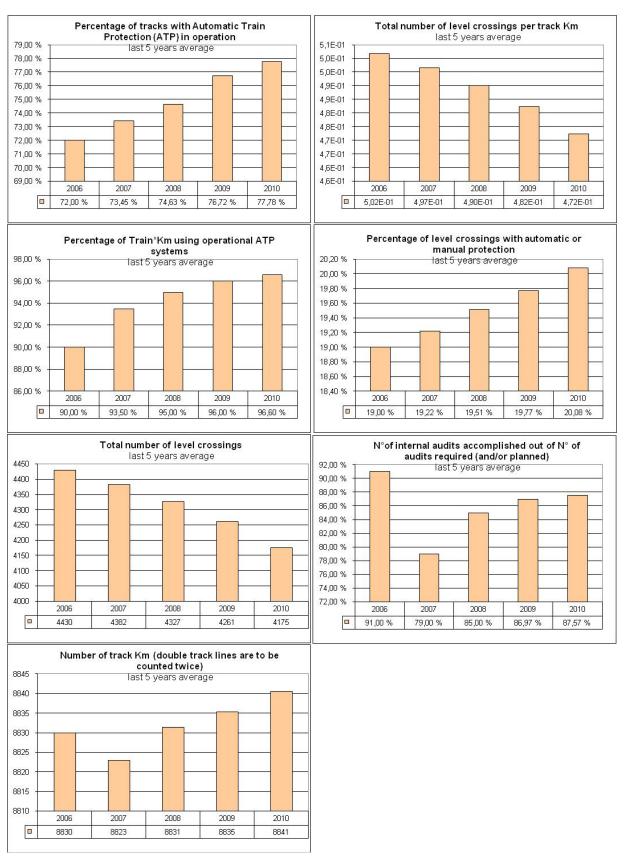
# Cost of all accidents, number of working hours of staff and contractors lost as a consequence of accidents



2007 report: values related to 2006.

2008 report: values related to the average between 2006 and 2007. 2009 report: values related to the average among 2006, 2007 and 2008.

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



2007 report: values related to 2006.

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

2009 report: values related to the average among 2006, 2007 and 2008.

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

#### C.2.1 Definitions in Regulation 91/03 to be applied:

#### deaths (killed person)

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

The information of a person dying within 30 days from the accident is not available in Finland. The work for making this information available for the NSA is still ongoing and will require teamwork between hospitals, police and the NSA.

#### injures (seriously injured person)

means any person injured who was hospitalized for more than 24 hours as a result of an accident, excluding attempted suicides. The information of a person being hospitalized for more than 24 hours is not available in Finland. The work for making this information available for the NSA is still ongoing and will require teamwork between hospitals, police and the NSA. At this point the information of person injuring seriously is judged by a train crew eye-witness of the accident such as the train driver.

#### passenger-km

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

#### rail passenger

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

#### suicide

national definition, an estimate from the RU (VR LTD), based on their information from the police. The police send the NSA information on the accidents investigated as suspected suicides. However we do not get the final information on the cause of the death. The causes of deaths have in the official statistics a class called a suicide done by throwing oneself under a moving vehicle. Most of these suicides are railway suicides but not all. Railway suicides cannot be found in the official death cause statistics as its own class. The NSA will continue the cooperation with the police and Statistics Finland.

#### significant accident

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

#### train

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

#### train\*Km

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

#### C.2.2 National definitions

#### Missing data:

#### Costs caused by accidents

Costs caused by accidents are not yet collected in Finland. We will concentrate on making a procedure to collect accident costs with the method described in the revision of Annex 1 of the safety directive.

We have made some estimation on costs of deaths and costs of serious injuries. The basic values are estimated for the Ministry of Transport and Communications by the Finnish Road Administration. The values are based on the willingness to pay principle.

```
Change of GDP 2005 -> 2006 + 4.4\%, 2006 -> 2007 + 5.3\%, 2007 -> 2008 + 1.0\%, 2008 -> 2009 - 8.2\% and 2009 -> 2010 + 3.6\% (Source: Statistics Finland)
```

```
Fatality 2005, basic value: 1 752 000 €
Fatality 2006: 1 829 088 €
Fatality 2007: 1 926 030 €
Fatality 2008: 1 945 290 €
Fatality 2009: 1 785 776 €
Fatality 2010: 1 850 064 €

Serious injury 2005, basic value: 227 000 €
Serious injury 2006: 236 988 €
Serious injury 2007: 249 548 €
Serious injury 2008: 252 044 €
Serious injury 2009: 231 376 €
Serious injury 2010: 239 706 €
```

Costs of replacement or repair of damaged rolling stock and railway installations is not yet collected in Finland. There are some estimates on the costs but they are not systematically made for all accidents. The actual costs can be available several months after the accident and are not always added to the accident statistics.

Costs of delays, disturbances and re-routing of traffic, including extra costs for staff and loss of future revenue is not collected.

#### **Working hours**

Total number of working hours of staff and contractors lost as a consequence of accidents is not collected in Finland. We have had discussions on this and the general estimation was just that the number of working hours lost as a consequence of accidents is low.

#### C.3 Abbreviations

| CSI   | Common Safety Indicator                        |
|-------|--|
| ERA   | European Railway Agency                        |
| LC    | Level Crossing                                 |
| MLN   | 10 <sup>6</sup>                                |
| BLN   | 10 <sup>9</sup>                                |
| NSA   | Network Safety Authorities                     |
| RS    | Rolling Stock                                  |
| RU/IM | Railway Undertaking and Infrastructure Manager |

#### ANNEX D: Important changes in legislation and regulation

|  | Legal reference   | Date legislation comes into force | Reason for introduction<br>(Additionally specify new<br>law or amendment to exist-<br>ing legislation)                                     | Description   |
|--|---|-----------------------------------|--|---|
| General national railway safety legislation  | NONE  |                                   |  |   |
| Legislation concerning the national safety authority   | NONE  |                                   |  |   |
| Legislation concerning notified bodies, assessors, third parties bodies for registration, examination, etc.  | NONE  |                                   |  |   |
| National rules concerning railway safety   |   |                                   |  |   |
| Rules concerning national safety targets and methods   | NONE  |                                   |  |   |
| Rules concerning requirements on safety management systems and safety certification of Railway Undertakings  | NONE  |                                   |  |   |
| Rules concerning requirements on safety management systems and Safety Authorisation of Infrastructure Managers   | NONE  |                                   |  |   |
| Rules concerning requirements for wagonkeepers   | NONE  |                                   |  |   |
| Rules concerning requirements for maintenance workshops  | NONE  |                                   |  |   |
| Rules concerning requirements for the autorisation of placing in service and maintenance of new and substantially altered rolling stock, including rules for exchange of rolling stock between Railway Undertakings, registration systems and requirements on testing procedures | NONE  |                                   |  |   |
| Common operating rules of the railway network, including rules relating to the signalling and traffic procedures   | NONE  |                                   |  |   |
| Rules laying down requirements on additional internal operating rules (company rules) that must be established by the Infrastructure Managers and Railway Undertakings   | NONE  |                                   |  |   |
| Rules concerning requirements on staff executing safety critical tasks, including selection criteria, medical fitness and vocational training and certification  | NSA Regulation on Health Requirements for Persons attending to the Traffic-Safety-Critical Tasks of the Railway System (TRAFI/14949/03.04.02.11/2010) | 3.1.2011                          | Repeals and updates the NSA Regulation for Persons attending to the Traffic-Safety-Critical Tasks of the Railway System (RVI/829/414/2006) | NSA rules on health assessment and health requirements for safety tasks and tasks of safety man and safety device installer.                                    |
|  | NSA Regulation on Making of<br>Health Examination (TRA-<br>FI/14950/03.04.02.11/2010)   | 3.1.2011                          | Repeals and updates the NSA Regulation on Making of Health Examination (RVI/830/002/2006)  | NSA rules on announcements concerning health, health assessment, making of health examination (doctor and nurse) and the forms in regard the health examination |
|  | NSA Regulation on Rules for Russian Railway Personnel in  | 1.10.2010                         | Cross-border traffic   | NSA rules in Vainikka, Imatran-<br>koski, Pelkola, Niirala and  |

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| Finnish Railway System (Tra-<br>fi/24897/2010)   |  |  | Vartius.  |
|--|--|--|---|
| NSA Regulation on Training<br>Programmes for Persons Ex-<br>ecuting Traffic Safety Tasks<br>(TRAFI/14723/03.04.02.13/2010) | 1.1.2011   | Train Driver Directive, OPE-TSI  | NSA regulation on NSA rules on training programmes, their structure and content and the rules concerning compensation of parts of the programmes  |
| Governmental Decree on amending the Governmental Decree on Safety and Interoperability in the Railway System (864/2010)    | 15.10.2010   | Implementation of the Commission Directive 2009/149/EC. Amends the Governmental Decree on Safety and Interoperability in the Railway System (750/2006).  |   |
| NONE   |  |  |   |
| NSA regulation (TRA-FI/14473/03.04.02.00/2010) on the structures of track and the maintenance of track                     | 1.11.2010  | Repeals and updates the NSA regulation (RVI/902/431/2009) on the structures of track and the maintenance of track.   | The NSA regulation concerns various structures of track, the maintenance of the structures, level crossings and gauge.  |
|  | fi/24897/2010)  NSA Regulation on Training Programmes for Persons Ex- ecuting Traffic Safety Tasks (TRAFI/14723/03.04.02.13/2010)  Governmental Decree on amending the Governmental Decree on Safety and Interoperability in the Railway System (864/2010)  NONE  NSA regulation (TRA- FI/14473/03.04.02.00/2010) on the structures of track and the | fi/24897/2010)  NSA Regulation on Training Programmes for Persons Ex- ecuting Traffic Safety Tasks (TRAFI/14723/03.04.02.13/2010)  Governmental Decree on amending the Governmental Decree on Safety and Interoperability in the Railway System (864/2010)  NONE  NSA regulation (TRA- FI/14473/03.04.02.00/2010) on the structures of track and the | fi/24897/2010)  NSA Regulation on Training Programmes for Persons Executing Traffic Safety Tasks (TRAFI/14723/03.04.02.13/2010)  Governmental Decree on amending the Governmental Decree on Safety and Interoperability in the Railway System (864/2010)  NSA regulation (TRA-FI/14473/03.04.02.00/2010) on the structures of track and the |

# ANNEX E: The development of safety certification and authorisation – Numerical Data

#### E.1 Safety Certificates according to Directive 2001/14/EC

| Number of Safety Certificates issued according to Directive 2001/14/EC, held by | being licensed in your<br>Member State    | 0 |
|---|---|---|
| Railway Undertakings in year 2010   | being licensed in another<br>Member State | 0 |

#### E.2 Safety Certificates according to Directive 2004/49/EC

|                            |                          |     | Updated |         |
|----------------------------|--------------------------|-----|---------|---------|
|                            |                          |     | /       |         |
|                            |                          | New | amended | Renewed |
| E.2.1. Number of valid     | being registered in your | 0   | 0       | 0       |
| Safety Certificates Part A | Member State             | U   | U       | O       |
| held by Railway Undertak-  | being registered in an-  | 0   | 0       | 0       |
| ings in the year 2010      | other Member State       | U   | U       | U       |

|   |   | New | Updated<br>/ amen-<br>ded | Renewed |
|---|---|-----|---------------------------|---------|
| E.2.2. Number of valid<br>Safety Certificates <b>Part B</b> | being registered in your<br>Member State      | 0   | 0                         | 0       |
| held by Railway Undertak-<br>ings in the year 2010          | being registered in an-<br>other Member State | 0   | 0                         | 0       |

|  |                                     |                                     | Α | R | Р |
|--|-------------------------------------|-------------------------------------|---|---|---|
| E.2.3. Number of applications for Safety Cer-State for | boing registered                    | new certificates                    | 0 | 0 | 3 |
|  | updated / amended certifica-<br>tes | 0                                   | 0 | 0 |   |
| tificates Part A                                       | State for                           | renewed certificates                | 0 | 0 | 0 |
| submitted by   | baine registered                    | new certificates                    | 0 | 0 | 0 |
| Railway Under-<br>takings in year                      | in year   In another Mem-           | updated / amended certifica-<br>tes | 0 | 0 | 0 |
| 2010   | ber State for                       | renewed certificates                | 0 | 0 | 0 |

|                                   |  |                                     | Α | R | Р |
|-----------------------------------|--|-------------------------------------|---|---|---|
| E.2.4. Number                     | boing registered                                     | new certificates                    | 0 | 0 | 3 |
| of applications for Safety Cer-   | being registered<br>in your Member                   | updated / amended certifica-<br>tes | 0 | 0 | 0 |
| tificates <b>Part B</b>           | State for  | renewed certificates                | 0 | 0 | 0 |
| submitted by                      |  | new certificates                    | 0 | 0 | 0 |
| Railway Under-<br>takings in year | being registered<br>in another Mem-<br>ber State for | updated / amended certifica-<br>tes | 0 | 0 | 0 |
| 2010                              | bei State for  | renewed certificates                | 0 | 0 | 0 |

A = Accepted application, certificate is already issued

R = Rejected applications, no certificate was issued

P = Case is still pending, no certificate was issued so far

E.2.5. List of countries where RUs applying for a Safety Certificate Part B in your Member State have obtained their Safety Certificate Part A

Finnish Railway Act has recognised separate Part A and B Safety Certificates from the beginning of 2010. Foreign based RU's did not apply for Part B Certificate in Finland in 2010.

#### E.3 Safety Authorisations according to Directive 2004/49/EC

|   | New | Updated<br>/ amen-<br>ded | Renewed |
|---|-----|---------------------------|---------|
| E.3.1. Number of valid Safety Authorisations held by Infrastructure Managers in the year 2009 being registered in your Member State | 0   | 0                         | 0       |

|   |                                  | Α | R | Р |
|---|----------------------------------|---|---|---|
| E.3.2. Number of applications for                                       | new authorisations               | 0 | 0 | 0 |
| Safety Authorisations submitted by Infrastructure Managers in year 2009 | updated / amended authorisations | 0 | 0 | 0 |
| being registered in your Member<br>State                                | renewed authorisations           | 0 | 0 | 0 |

- A = Accepted application, authorisation is already issued
- R = Rejected applications, no authorisation was issued
- P = Case is still pending, no authorisation was issued so far

#### E.4 Procedural aspects – Safety Certificates part A

|  |   |     | Updated<br>/ amen- |         |
|--|---|-----|--------------------|---------|
|  |   | New | ded                | Renewed |
| Mean time after having received all necessary in-  | being registered in your<br>Member State      | -   | -                  | -       |
| formation between the receipt of an application and the final delivery of a Safety Certificate <b>Part A</b> in year 2009 for Railway Undertakings | being registered in an-<br>other Member State | -   | -                  | -       |

#### E.5 Procedural aspects - Safety Certificates part B

|  |   |     | Updated<br>/ |         |
|--|---|-----|--------------|---------|
|  |   | New | amended      | Renewed |
| Mean time after having received all necessary in-  | being registered in your<br>Member State      | 1   | 1            | -       |
| formation between the receipt of an application and the final delivery of a Safety Certificate <b>Part B</b> in year 2009 for Railway Undertakings | being registered in an-<br>other Member State |     | -            | -       |

#### **E.6** Procedural aspects – Safety Authorisations

|   |   |     | Updated<br>/ |         |
|---|---|-----|--------------|---------|
|   |   | New | amended      | Renewed |
| Mean time after having received all necessary in-   | being registered in your<br>Member State      | -   | -            | -       |
| formation between the receipt of an application and the final delivery of a Safety Authorisation in year 2009 for Infrastructure Managers | being registered in an-<br>other Member State | -   | -            | -       |

Annex F: Level crossing accidents in year 2010 on the Finnish rail network

#### Level crossing accidents in year 2010

