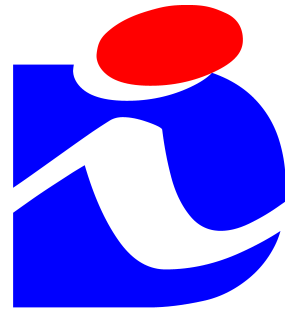


Czech Republic



The Rail Safety  
Inspection Office

# **NIB ANNUAL REPORT 2012**

according to Article 23(3) of Directive 2004/49/EC

The Rail Safety Inspection Office

Czech Republic

September 2013





## **PREFACE TO THE REPORT**

A National Investigation Body operates in the Czech Republic – The Rail Safety Inspection Office – conducting independent investigation of the causes and circumstances of railway accidents and incidents according to Directive 2004/49/EC, the principles and requirements of which have been implemented into the national legislation. The objective of the investigation of the causes and circumstances of railway accidents and incidents is to increase the safety of railways.

This Annual Report is an annual report issued by the National Investigation Body of the Czech Republic, The Rail Safety Inspection Office, for 2012, pursuant to Art. 23(3) of Directive 2004/49/EC. It comprises information regarding:

- the National Investigation Body
- the system of investigation of railway accidents and incidents
- the investigations of accidents and incidents completed in 2012
- the safety recommendations issued



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## **1 INTRODUCTION TO THE INVESTIGATION BODY**

### **1.1 Legal framework**

The process of the implementation of Directive 2004/49/EC into the national legislation of the Czech Republic was completed on 1<sup>st</sup> July 2006 by Act 266/1994 Coll., on Railways, as amended, and the subsequent issue of implementing Decree 376/2006 Coll., on the System of Safe Railway Operation and Railway Transport Operation and Procedures Following Railway Accidents and Incidents.

Directive 2009/149/EC amending Annex I of Directive 2004/49/EC was implemented into the national legislation on 30<sup>th</sup> August 2010.

Accidents and incidents are further divided into the following categories, reflecting their nature and consequences:

- serious accidents
- accidents
- incidents

The national legislation of the Czech Republic orders infrastructure managers and railway undertakings to investigate the causes and circumstances of railway accidents and incidents.

The accident and incident investigation performed by The Rail Safety Inspection Office is independent of any other party and independent of the investigation conducted by other bodies, especially police investigation and the investigation of the causes and circumstances of accidents and incidents conducted by infrastructure managers or railway undertakings.

### **1.2 Role and Mission**

The National Investigation Body was established in the Czech Republic on 1<sup>st</sup> January 2003. The mission is to guarantee independent investigation of the causes and circumstances of railway accidents and incidents. The national legislation of the Czech Republic also authorizes the National Investigation Body to investigate accidents and incidents within trams, trolleybuses and cable-ways, because all these kinds of transport are included in the same legislation regime as the railways.

The main goal of the Office's work is to prevent the occurrence of accidents and incidents. Therefore, the Rail Safety Inspection Office:

- investigates the causes and circumstances of rail accidents and incidents,
- supervises investigations performed by infrastructure managers and railway undertakings,



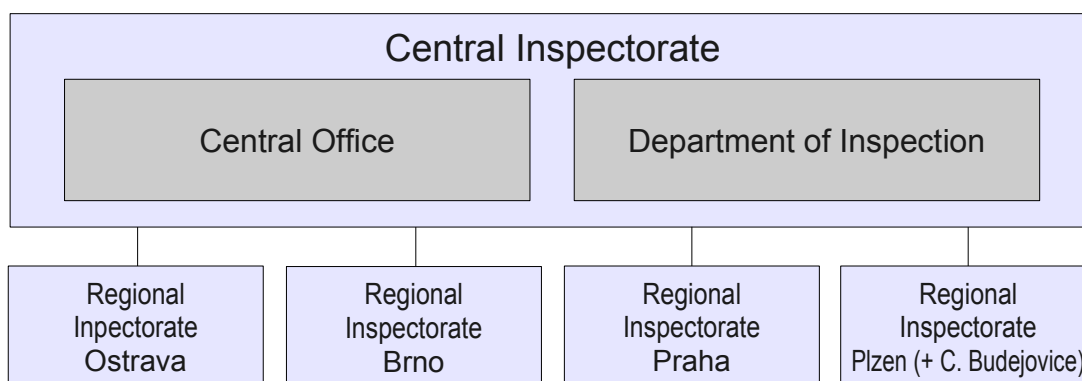
- detects deficiencies compromising the safety of rail infrastructure and rail transport,
- evaluates development trends in accidents and incidents within the rail system and takes measures to improve the situation,
- issues safety recommendations to railway undertakings, infrastructure managers, to the National Safety Authority or other authorities and parties.

### 1.3 Organisation

On 1<sup>st</sup> January 2003, the National Investigation Body – The Rail Safety Inspection Office – was established in the Czech Republic pursuant to the provisions of Act 77/2002 Coll. The Rail Safety Inspection Office is a national body investigating the causes of railway accidents and incidents independently of any other party and performing preventative inspections of railway safety. As an investigation body it is independent of any infrastructure manager, railway undertaking and regulatory body. The competences of The Rail Safety Inspection Office include:

- railways (main lines, regional lines, sidings, underground)
- tram lines
- trolleybus lines
- cable-ways

The Rail Safety Inspection Office has a total of 48 employees in five cities of the Czech Republic (Ostrava, Brno, Praha, Plzen, Ceske Budejovice). It comprises of the Central Inspectorate and four regional inspectorates covering the area of the entire country. The Central Inspectorate consists of The Central Office and The Department of Inspection.



**The Central Office** plays supportive role for the Inspector General and the whole structure of The Rail Safety Inspection Office. It provides human-resource management, economic, IT and legal services and public relations.

**The Department of Inspection** maintains accident investigation and preventative safety inspection systems, including the co-ordination of the regional inspectorates' activities.



The department also manages staff training and mediates communication with EU bodies.

**Regional Inspectorates** investigate the causes of rail accidents and incidents with the aim of enabling lessons to be learned for improving the safety of railways. They also perform safety inspection focusing on accident and incident prevention.

#### 1.4 Organisational flow

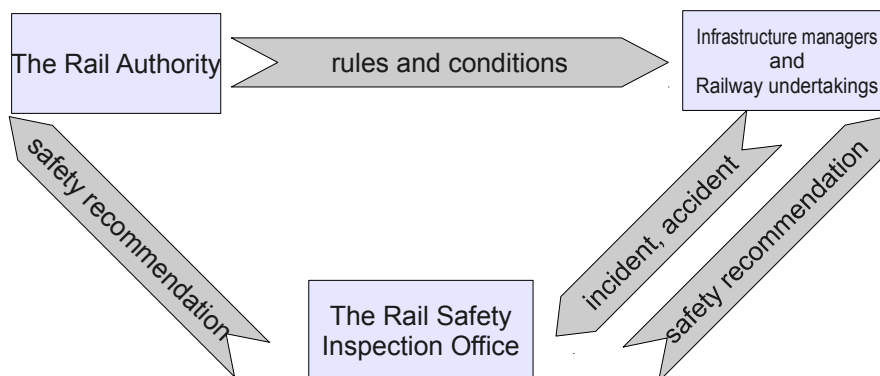
The structure of railway sector in the Czech Republic and relationships among the parties involved are defined in Act 266/1994 Coll., on Railways, as amended, and its implementing regulations. The legislation applies to the following transport systems:

- railways (main lines, regional lines, sidings, underground)
- tram lines
- trolleybus lines
- cable-ways

The most important bodies in the railway sector include the Czech Ministry for Transportation, The Railway Office and The Rail Safety Inspection Office. The Czech Ministry for Transportation is in charge of the national railway legislation, including implementation of the EU railway legislation. The Railway Office is the National Safety Authority carrying out certification and regulation of railway and railway transport operation, according to the national legislation. The Rail Safety Inspection Office is the National Investigation Body independent of any party in the railway sector.

All these authorities are involved in the system of maintaining and improving safety of railways and railway transport:

- **The Czech Ministry for Transportation** sets the framework by developing railway legislation.
- **The Rail Safety Inspection Office (NIB)** investigates railway accidents and incidents and issues safety recommendations to The Railway Office.
- **The Rail Authority (NSA)** sets and adjusts safety rules for infrastructure managers and railway undertakings.





## **2 INVESTIGATION PROCESSES**

### **2.1 Cases to be investigated**

The national legislation of the Czech Republic orders the National Investigation Body, The Rail Safety Inspection Office, in accordance with European principles, to investigate the causes and circumstances of serious accidents on main and regional lines, border railways and sidings. In addition, The Rail Safety Inspection Office may investigate, in cases defined by the respective law, other occurrences in the following cases:

- serious accidents regarding underground, trams, trolleybuses and cable-ways
- accidents and incidents on all types of guided transport

When making decision whether to investigate or not, The Rail Safety Inspection Office takes into account the above mentioned legal requirements, as well as possibility to learn safety relevant lessons from the accident or incident.

### **2.2 Institutions involved in investigations**

Following the occurrence of railway accident or incident, various parties may launch several independent investigations, depending on the occurrence's nature and consequences:

- **Infrastructure manager or railway undertaking** identifies the causes and circumstances of accident or incident, focusing on the drafting of preventative measures and the proposal of responsibility for the occurrence.
- **The Rail Safety Inspection Office** investigates the causes and circumstances of accident or incident with a focus on the determination of the causes and issue of preventative safety recommendation.
- **Czech Police** investigate accident or incident with the aim of defining responsibility for the committing of offenses or criminal acts.

### **2.3 Investigation process or approach of the IB**

The objective of the investigation of the causes of railway accidents and incidents is to gain knowledge for the prevention of accidents and incidents, minimize the consequences and increase the safety of railways.

Investigation performed by the National Investigation Body of the Czech Republic, The Rail Safety Inspection Office, focuses on the following aspects of each occurrence:

- independent investigation of the causes and circumstances of accident or incident (serious accidents and selected accidents and incidents only)
- meeting legal requirements for procedures following railway accident or incident by infrastructure manager and railway undertaking





- verification of the correctness and completeness of the procedures followed by infrastructure manager or railway undertaking when identifying the causes and circumstances of an accident or incident, in accordance with the national legislation.

When notified about the occurrence of accident or incident by an infrastructure manager or railway undertaking, The Rail Safety Inspection Office will decide whether it will immediately go to the accident-site or not. At the accident-site The Rail Safety Inspection Office will launch an independent investigation or just verifies the steps performed by infrastructure managers and railway undertakings involved.

If The Rail Safety Inspection Office launches an investigation, it will notify The European Railway Agency within seven days. The investigation of accident or incident may be launched immediately after the occurrence and/or later, in reaction to specific circumstances.

The Rail Safety Inspection Office will publish the conclusions of its investigation in Investigation Report, the structure of which is based on the requirements of Directive 2004/49/EC. If the accident or incident occurred without any violation of legislation or internal regulations of infrastructure manager and/or railway undertaking, The Rail Safety Inspection Office issues safety recommendation with the aim of preventing reoccurrence of the accident or incident. Safety recommendation is issued also if there are other findings relevant for the safety.



### 3 INVESTIGATIONS

#### 3.1 Overview of investigations completed in 2012, identifying key trends

Trends of completed investigations (last column of the table) are calculated as difference to previous year (2011).

Type of accidents investigated	Number of accidents	Number of victims		Damages in € (approx.)	Trends in relation to previous year
		Deaths	Ser.injury		
Collisions	9	1	3	2.016.421,-	+80%
Derailments	6	0	0	1.195.507,-	+0%
LC-accident	5	2	0	1.072.269,-	+67%
Fire in RS	0	0	0	0,-	+0%
Acc. to person	2	2	0	400,-	-33%
Other	2	0	0	6.725,-	+0%

#### 3.2 Investigations completed and commenced in 2012

##### Investigations completed in 2012

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Completed (date)
20.10.2010	Accident to person caused by RS in motion: between Prackovice nad Labem and Lovosice stations	i	29.03.2012
10.04.2011	Train derailment: in Praha Zizkov station, marshalling yards	i	17.08.2012
05.06.2011	Train derailment: between Vyskov na Morave and Ivancice na Hane stations	i	29.03.2012
08.06.2011	Level-crossing accident: km 147,076, between Napajedla and Spytihnev stations	i	20.02.2012
11.07.2011	Trains collision with an obstacle: in Olomouc hl. n. station	i	19.01.2012
21.07.2011	Trains collision with an obstacle: between Hodkovice nad Mohelkou and Rychnov u Jablonce nad Nisou stations	i	27.12.2012
29.07.2011	Accident to person caused by RS in motion: in Vladislav station	i	23.11.2012
29.07.2011	Train derailment: between Okrisky and Jihlava stations	i	18.04.2012
23.08.2011	Trains collision: in Praha Liben station	i	24.08.2012
31.08.2011	Trains collision: between Karizek and Zbiroh stations	i	19.01.2012



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Legal basis</b>	<b>Completed</b> (date)
07.09.2011	Train derailment: in Prerov station	i	04.12.2012
29.09.2011	Trains collision with an obstacle: in the siding "Vitkovice doprava"	ii	09.03.2012
06.10.2011	Trains collision: between Kostomlaty nad Labem and Nymburk hl. n. stations	i	21.06.2012
17.10.2011	Trains collision with an obstacle: between Ostrava Trebovice and Dehylov stations	i	20.04.2012
22.10.2011	Train derailment: Branch Odra, between Ostrava Kuncice and Ostrava Svinov stations	i	29.05.2012
17.11.2011	Train derailment: between Pardubice Rosice nad Labem and Steblova stations	i	24.9.2012
22.11.2011	Trains collision with an obstacle: in Hradcany stop	i	06.09.2012
05.12.2011	Other: SPAD in Baska station	i	25.06.2012
08.12.2011	Other: railway vehicle movement events in the siding "Vlečka CEZ" Chvaletice	ii	06.09.2012
20.01.2012	Level-crossing accident: km 54,854 in Breznice station	i	16.11.2012
24.01.2012	Trains collision with an obstacle: in the siding "Vlečka Drevosklad" Adamov	ii	10.09.2012
27.02.2012	Level-crossing accident: km 247,813 between Protivin stop and Protivin station	i	11.09.2012
29.02.2012	Level-crossing accident: km 186,463 in Kstice station	i	07.12.2012
05.03.2012	Level-crossing accident: km 4,740 between Kobylí na Moravě and Velké Pavlovice stations	i	12.10.2012

**Basis for investigation:** i = According to the Safety Directive, ii = On national legal basis (covering possible areas excluded in Article 2, §2 of the Safety Directive), iii = Voluntary – other criteria (National rules/regulations not referred to the Safety Directive).

#### **Investigations commenced in 2012**

<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Legal basis</b>
29.07.2011	Accident to person caused by RS in motion: in Vladislav station	i
22.11.2011	Trains collision with an obstacle: in Hradcany stop	i
05.12.2011	Other: SPAD in Baska station	i
08.12.2011	Other: railway vehicle movement events in the siding "Vlečka CEZ" Chvaletice	ii
20.01.2012	Level-crossing accident: km 54,854 in Breznice station	i



24.01.2012	Trains collision with an obstacle: in the siding "Vlečka Drevosklad" Adamov	ii
16.02.2012	Other: SPAD between Korenov and Dolný Polubný stations	i
27.02.2012	Level-crossing accident: km 247,813 between Protivín stop and Protivín station	i
29.02.2012	Level-crossing accident: km 186,463 in Kástice station	i
05.03.2012	Level-crossing accident: km 4,740 between Kobyly na Moravě and Velké Pavlovice stations	i
29.03.2012	Other: SPAD in Praha hlavní nádraží station	i
31.03.2012	Trains collision: between Peruc and Klobuky v Čechách stations	i
07.05.2012	Level-crossing accident: km 286,369 in Uhersko station	i
20.05.2012	Train derailment: between Stětí and Libeňov stations	i
25.05.2012	Level-crossing accident: km 7,800 in Trest station	i
25.06.2012	Other: SPAD in Horovice station	i
23.07.2012	Trains collision with an obstacle: between Střelice and Hrušovany nad Jevišovkou stations	i
28.07.2012	Level-crossing accident: km 2,431 in the siding "Vlečka Elektrárna" Opatovice	ii
26.08.2012	Trains collision with an obstacle: between Vlastějovice and Ledec nad Sázavou stations	i
10.09.2012	Train derailment: between Blansko, Adamov and Brno Maloměřice stations	i
01.11.2012	Other: Broken axle - The city of Ostrava – tram yard	ii
17.11.2012	Trains collision with an obstacle: in Blazovice station	i
18.11.2012	Train derailment: in Praha Vršovice station	i

**Basis for investigation:** i = According to the Safety Directive, ii = On national legal basis (covering possible areas excluded in Article 2, §2 of the Safety Directive), iii = Voluntary – other criteria (National rules/regulations not referred to the Safety Directive).

### 3.3 Research studies (or Safety Studies) commissioned and completed in 2012

#### Safety Studies completed in 2012

Date of commission	Title of the Study (Occurrence type, location)	Legal basis	Completed (date)
	none		

**Basis for investigation:** i = According to the Safety Directive, ii = On national legal basis (covering possible areas excluded in Article 2, §2 of the Safety Directive), iii = Voluntary – other criteria (National rules/regulations not referred to the Safety Directive).

#### Safety Studies commenced in 2012



Date of commission	Title of the Study (Occurrence type, location)	Legal basis
	none	

**Basis for investigation:** i = According to the Safety Directive, ii = On national legal basis (covering possible areas excluded in Article 2, §2 of the Safety Directive), iii = Voluntary – other criteria (National rules/regulations not referred to the Safety Directive).

### 3.4 Summaries of investigations completed in 2012

See annex of this report.

### 3.5 Comment and introduction or background to the investigations

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis
	none	

**Basis for investigation:** i = According to the Safety Directive, ii = On national legal basis (covering possible areas excluded in Article 2, §2 of the Safety Directive), iii = Voluntary – other criteria (National rules/regulations not referred to the Safety Directive).

#### Investigations commenced in 2012 and not followed

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Reason of non following or suspension of investigations	Who, why, when (decision)
	none			

**Basis for investigation:** i = According to the Safety Directive, ii = On national legal basis (covering possible areas excluded in Article 2, §2 of the Safety Directive), iii = Voluntary – other criteria (National rules/regulations not referred to the Safety Directive).

### 3.6 Accidents and incidents investigated during last five years (in 2008–2012)

### 3.7 Rail investigations completed in 2008–2012



The table groups investigations by year of their completion.

<b>Accidents investigated</b>		<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>TOT</b>
Serious accidents (Art 19, 1 + 2)	Train collision	5	1	1	1	0	<b>8</b>
	Train collision with an obstacle	0	0	1	0	0	<b>1</b>
	Train derailment	2	0	2	1	0	<b>5</b>
	Level-crossing accident	-	-	-	-	-	<b>-</b>
	Accident to person caused by RS in motion	-	-	-	-	-	<b>-</b>
	Fire in rolling stock	-	-	-	-	-	<b>-</b>
	Involving dangerous goods	0	0	0	0	-	<b>0</b>
Other accidents (Art 21.6)	Train collision	2	1	6	1	3	<b>13</b>
	Train collision with an obstacle	2	0	0	2	4	<b>8</b>
	Train derailment	5	1	7	5	6	<b>24</b>
	Level-crossing accident	5	4	7	1	5	<b>22</b>
	Accident to person caused by RS in motion	1	1	3	2	2	<b>9</b>
	Fire in rolling stock	1	0	0	0	0	<b>1</b>
	Involving dangerous goods	0	0	0	0	0	<b>0</b>
Incidents		2	0	1	2	1	<b>6</b>
<b>TOTAL</b>		<b>25</b>	<b>8</b>	<b>28</b>	<b>15</b>	<b>21</b>	<b>97</b>



## **4 RECOMMENDATIONS**

### **4.1 Short review and presentation of recommendations**

A safety recommendation can be issued only on a basis of an independent investigation performed by The Rail Safety Inspection Office (NIB). Safety recommendation is usually issued when an accident occurred without any violation of legislation or internal regulations of infrastructure manager and/or railway undertaking, or if there are other findings relevant for the safety.

According to national legislation, safety recommendations are not legally binding. When a recommendation is issued, railway undertakings and infrastructure managers are obliged to adopt their own preventative safety measures based on the safety recommendation issued.

#### **Implementation of recommendations during 2008 – 2012**

<b>Recommendations issued</b>		<b>Recommendation implementation status</b>					
		<b>Implemented</b>		<b>In progress</b>		<b>Not to be implemented</b>	
<b>Year</b>	<b>[No.]</b>	<b>[No.]</b>	<b>[%]</b>	<b>[No.]</b>	<b>[%]</b>	<b>[No.]</b>	<b>[%]</b>
<b>2008</b>	<b>16</b>	11	68,75	1	6,25	4	25
<b>2009</b>	<b>5</b>	1	20	1	20	3	60
<b>2010</b>	<b>11</b>	7	63,6	3	27,3	1	9,1
<b>2011</b>	<b>14</b>	5	23	6	69	3	8
<b>2012</b>	<b>19</b>	5	26,3	8	42,1	6	31,6
<b>TOTAL</b>	<b>65</b>	<b>29</b>	<b>48</b>	<b>19</b>	<b>37,5</b>	<b>17</b>	<b>14,5</b>

#### **Accidents with safety recommendations issued in 2008 – 2012**

<b>Date of occurrence</b>	<b>Title of the investigation (Occurrence type, location)</b>	<b>Status of implem.</b>	<b>Completed (date)</b>
20.02.2007	Train derailment: between Mnisek pod Brdy and Cisovice stations	implemented	27.02.2008
04.07.2007	Level crossing accident: Veseli nad Luznici station	not implemented	14.03.2008
14.07.2007	Trains collision: Cercany station	implemented	25.06.2008
01.09.2007	Trains collision: between Bavorov and Vodňany stations	implemented	18.04.2008
20.09.2007	Train collision: between Krasikov and Rudoltice v Cechach stations	implemented	20.03.2008
21.09.2007	Level crossing accident: between Jaromerice nad Rokytnou and Moravske Budejovice stations	not implemented	25.05.2008



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
30.10.2007	Level crossing accident: between Domasov nad Bystrici and Moravsky Beroun stations	implemented	07.04.2008
27.11.2007	Train derailment: Bystrice nad Olši station	implemented	06.06.2008
01.12.2007	Train derailment: between odbočka Kyje and Praha-Bechovice	not implemented	28.08.2008
06.12.2007	Train derailment: Ostrava-Kuncice station	implemented	26.05.2008
23.01.2008	Train collision: Trebovice v Cechách station	implemented	12.12.2008
19.02.2008	Accident to person – Injury to passenger (cableway): Janské Lázně, Protež	not implemented	31.08.2009
10.04.2008	Trams collision: Brno, Husova - Palackého crossing	implemented	21.11.2008
11.04.2008	Trams collision: between Poruba koupaliště and Vřesina tram-stops	implemented	31.08.2008
19.05.2008	Trains collision: Moravany station	not implemented	26.09.2008
02.06.2008	Accident to person – Injury to passenger: Olomouc, Wolkerova tram-stop	implemented	20.11.2008
30.07.2008	Fire in rolling stock: between Pnovany and Vranov u Stribra stations	partially implemented	18.12.2008
08.08.2008	Train collision with an obstacle: Studenka station	implemented	31.05.2010
10.11.2008	Trains collision: between Hlinsko v Cechách and Zdireč nad Doubravou stations	not implemented	02.07.2009
23.11.2008	Level-crossing accident: km 20.285, between Horní Lipova and Ramzova stations	not implemented	30.06.2009
17.12.2008	Level-crossing accident: km 4.981, between Branka u Opavy and Odbočka Moravice stations	partially implemented	26.08.2009
08.01.2009	Level-crossing accident: km 222.975, between Hluboka nad Vltavou and Zliv stations	implemented	07.07.2009
16.02.2009	Trains collision: between Paskov and Vratimov stations	not implemented	17.03.2010
01.04.2009	Train derailment: derailment during shunting operation in Brno hl. n. station	implemented	19.04.2010
24.04.2009	Train derailment: Cercany station	partially implemented	14.01.2010
16.05.2009	Trains collision: collision of run-away wagons in Česká Třebová station	implemented	05.10.2010
22.06.2009	Train derailment: in Olomouc station	not implemented	03.03.2011
23.06.2009	Trains collision: collision during shunting operation in Brno hl. n. station	implemented	16.03.2010





<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
01.07.2009	Train derailment: between Senohraby and Strancice stations	implemented	11.04.2011
17.08.2009	Accident to person – Injury to passenger: Brno, between Porici and Nemocnice Milosrdnych Bratri tram stops	partially implemented	04.06.2010
01.09.2009	Trains collision: between Horni Lipova and Lipova Lazne stations	implemented	13.04.2010
16.10.2009	Trains collision: Prerov station	In progress	18.10.2010
07.03.2010	Accident to person – Injury to passenger: in Ostrava hl. n. station	implemented	10.11.2010
11.03.2010	Other: intrusion on train by brake-shoe between Brodek u Prerova and Dluhonice stations	implemented	01.03.2011
04.04.2010	Accident to person – Injury to passenger: in Sazavka stop	not implemented	04.08.2011
16.04.2010	Train collision with an obstacle: in Golcuv Jenikov station with consequent derailment	implemented	28.12.2010
29.05.2010	Level-crossing accident: km 3.835 between Cervena Voda and Kraliky stations	partially implemented	18.02.2011
28.06.2010	Train derailment: in Usti nad Labem-jih station	partially implemented	15.06.2011
07.12.2010	Train derailment: between Jesenik and Lipova Lazne stations	not implemented	06.06.2011
20.12.2010	Trains collision: in Kamenne Zehrovice station	partially implemented	02.08.2011
06.01.2011	Trains collision: between Holetin and Vojetechov stops	implemented	11.11.2011
22.01.2011	Train derailment: in Brno Malomerice station	in progress	12.09.2011
02.02.2011	Trains collision: between Vodnany and Cicenice stations	in progress	16.08.2011
14.03.2011	Other: Broken tyre of wheel of locomotive, in Uhersko station	implemented	14.12.2011
31.03.2011	Accident to person – Injury to passenger, in Cimelice station	in progress	14.11.2011
21.04.2011	Accident to person – Injury to passenger, The City of Ostrava – tram stop Tylova	implemented	14.11.2011
20.10.2010	Accident to person caused by RS in motion: open line between Prackovice nad Labem and Lovosice stations	partially implemented	29.03.2012
05.06.2011	Train derailment: between Vyskov na Morave and Ivancice na Hane stations	implemented	29.03.2012
11.07.2011	Trains collision with an obstacle: in Olomouc hl. n. station	partially implemented	19.01.2012
21.07.2011	Trains collision with an obstacle: between Hodkovice nad Mohelkou and Rychnov u Jablonce nad Nisou stations	partially implemented	27.12.2012



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
29.07.2011	Accident to person caused by RS in motion: in Vladislav station	partially implemented	23.11.2012
29.07.2011	Train derailment: between Okriský and Jihlava stations	In progress	18.04.2012
23.08.2011	Trains collision: in Praha Liben station	partially implemented	24.08.2012
07.09.2011	Train derailment: in Prerov station	not implemented	04.12.2012
17.10.2011	Trains collision with an obstacle: between Ostrava Třebovice and Dehylov stations	implemented	20.04.2012
22.10.2011	Train derailment: Branch Odra, between Ostrava Kuncice and Ostrava Svinov stations	In progress	29.05.2012
17.11.2011	Train derailment: between Pardubice Rosice nad Labem and Steblova stations	partially implemented	24.09.2012
22.11.2011	Trains collision with an obstacle: in Hradčany stop	implemented	06.09.2012
05.12.2011	Other: SPAD in Baska station	not implemented	25.06.2012
08.12.2011	Other: railway vehicle movement events in the siding "Vlečka CEZ" Chvaletice	implemented	06.09.2012
20.01.2012	Level-crossing accident: km 54,854 in Breznice station	not implemented	16.11.2012
24.01.2012	Trains collision with an obstacle: in the siding "Vlečka Drevošklád" Adamov	implemented	10.09.2012
27.02.2012	Level-crossing accident: km 247,813 between Protivín stop and Protivín station	not implemented	11.09.2012
29.02.2012	Level-crossing accident: km 186,463 in Káštice station	not implemented	07.12.2012
05.03.2012	Level-crossing accident: km 4,740 between Kobyli na Moravě and Velké Pavlovice stations	not implemented	12.10.2012

#### **4.2 Recommendations issued in 2012**

<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
20.10.2010	Accident to person caused by RS in motion: open line between Prackovice nad Labem and Lovosice stations
<b>Addressed</b> to Správa železniční dopravní cesty, státní organizace:	
<ul style="list-style-type: none"><li>It is recommended to ensure to give the relevant information to maintenance</li></ul>	



Date of occurrence	Title of the investigation, Safety recommendation
	<p>workers about the situation when the track is under the maintenance and when is operate normally including necessary measurs for work at the track.</p> <ul style="list-style-type: none"><li>It is recommended to ensure the transmission of information to personnel's who are responsible for safety work during the maintenance at the track, including the delivery of other necessary information.</li></ul> <p><b>Addressed</b> to Czech National Safety Authority (Drážní úřad):</p> <ul style="list-style-type: none"><li>It is recommended to take their own measures to ensure adoption of the above re-commendation by all railway infrastructure managers with in Czech Republic.</li></ul>
05.06.2011	<p>Train derailment: between Vyskov na Morave and Ivancice na Hane stations</p> <p><b>Addressed</b> to infrastructure manager Správa železniční dopravní cesty, státní organizace:</p> <ul style="list-style-type: none"><li>It is recommended to determine the maximum lifetime of rubber pad inserted under the flange of a rail because of their verifiable degradation due to the traffic</li><li>It is recommended to define maximum wear and tear of rubber pad inserted under the flange of a rail and maximum acceptable amount of fully worn out pads per certain distance of a track; if this amount is exceeded than all rubber pads must be replaced or other safety measures taken</li><li>It is recommended to determine the maximum lifetime or wear and tear of double spiral rings if their location is in rail fastening system</li><li>It is recommended to check technical condition of rubber pads inserted under the flange of a rail of all long welded rails older than 10 years before hot weath-er in 2012 comes</li><li>It is recommended to check technical condition and flexibility of double spiral rings of all long welded rails older than 10 years before hot weather in 2012 comes</li><li>It is recommended to make a special knowledge test for all managers who are involved in control and maintenance activities and remove defects of long wel-ded rails before hot weather in 2012 comes</li><li>It is recommended to make an analysis of all possible work tasks and activities which are need for track maintenance and checks, to determine the average time demands and these results of the analysis compare with actual personnel capacities involved. Based on these results to take other appropriate meas-ures.</li></ul> <p><b>Addressed</b> to Czech National Safety Authority (Drážní úřad):</p>



Date of occurrence	Title of the investigation, Safety recommendation
	<ul style="list-style-type: none"> <li>It is recommended to take their own measures to ensure adoption of the recommendations 1 – 5 by all infrastructure managers of main and regional lines within Czech Republic</li> </ul>
11.07.2011	Trains collision with an obstacle: in Olomouc hl. n. station
	<p><b>Addressed</b> to infrastructure manager Správa železniční dopravní cesty, státní organizace:</p> <ul style="list-style-type: none"> <li>It is recommended to define a procedure for preventing unwanted setting of train route via switch or track which is closed to traffic and where temporary signal "Stop, track closed" can't be used. This procedure should ensure that interlocking system can't set any route via such switch or track.</li> </ul> <p><b>Addressed</b> to Czech National Safety Authority (Drážní úřad):</p> <ul style="list-style-type: none"> <li>It is recommended to take their own measures to ensure adoption of the above recommendation by all railway infrastructure managers within Czech Republic.</li> </ul>
21.07.2011	Trains collision with an obstacle: between Hodkovice nad Mohelkou and Rychnov u Jablonce nad Nisou stations
	<p><b>Addressed</b> to infrastructure manager Správa železniční dopravní cesty, s. o.:</p> <ul style="list-style-type: none"> <li>own measures gradually ensure removal of threat track (trees) that interfere transition cross section (and their Impact distance) growing on plots in protection zone track where the right-holder economy, then preferentially in locations subject to frequent to tree collapses;</li> <li>consistently act on the Elimination these sources of danger to the railway with other land owners in the protection zone tracks, including and in cases of dispute to communicate with Czech National Safety Authority.</li> </ul> <p><b>Addressed</b> to Czech National Safety Authority (NSA) in conjunction Czech Ministry of Transport:</p> <ul style="list-style-type: none"> <li>Initiate legislative change at least to the extent that the rail operator was given possibility to remove trees in the protected zone track without permission, as in the protected zone of the electricity and gas networks;</li> <li>accept serious measures to eliminate sources of danger Railways (trees) which interferes Impact distance transition cross section growing on plots in protected zone of track.</li> </ul>
29.07.2011	Accident to person caused by RS in motion: in Vladislav station
1)	<p><b>Addressed</b> to railway undertaking České dráhy, a. s.:</p> <ul style="list-style-type: none"> <li>to equip all rolling stocks - which are equipped with the information system, which is automatically triggered by unlocking of central controlled doors of the train - with equipment so that the driver could control information system and in</li> </ul>

Page 17 of 64



Date of occurrence	Title of the investigation, Safety recommendation
	<ul style="list-style-type: none"> <li>at the stations that are permanently occupied and controlled by the train dispatchers not to allow departure of the train with the passengers (regular or extraordinary) from an area for entrance and exit of passengers only by using of signal.</li> </ul> <p><b>Addressed</b> to railway undertaking České dráhy, a. s.:</p> <ul style="list-style-type: none"> <li>it is recommended to hurry on installation of mobile components of ETCS into railway vehicles in order to allow use of full functionality of ETCS as soon as the infrastructure is ready;</li> <li>to modify technological procedures in order to the train driver of the leading rolling stock of the train with passengers in an area for entrance and exit of passengers at the station where the departure of the rolling stock is allowed only by using of signal always initiated before putting of the train in motion, warning signal which will be given verbally, by signaling tool or by technical equipment.</li> </ul> <p><b>Addressed</b> to Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) and railway undertaking (RU) in the Czech Republic.</li> </ul>
07.09.2011	Train derailment: in Prerov station
	<p><b>Addressed</b> to infrastructure manager Správa železniční dopravní cesty, s. o.:</p> <ul style="list-style-type: none"> <li>to improve technological procedures so that an interval of periodic inspections of wear and tear of switches and rails was determined not only in track lines and main station lines but also in other station lines and this measurement was documented.</li> </ul> <p><b>Addressed</b> to Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) in the Czech Republic.</li> </ul> <p><b>Addressed</b> to Network of National Safety Authorities of European Railway Agency:</p> <ul style="list-style-type: none"> <li>in full range to implement the safety recommendation which was issued on the basis of accident (CZ 736), 22<sup>th</sup> July 2009 in Olomouc main station: it is recommended to develop and adopt within EU member states a common system of identification of detachable part of freight wagons' suspension, which allows investigators to recognize original positioning of each of the parts spread around after an accident.</li> </ul>
17.10.2011	Trains collision with an obstacle: between Ostrava Trebovice and Dehylov stations
	<p><b>Addressed</b> to railway undertaking České dráhy, a. s.:</p> <ul style="list-style-type: none"> <li>strengthen of rolling stock used in cardan shaft unbalance in a way that heat does</li> </ul>



Date of occurrence	Title of the investigation, Safety recommendation
	<p>not affect the quality and plasticity of the shaft material;</p> <ul style="list-style-type: none"><li>to use safety stirrups or cage for security of coupling and cardan shafts used in rolling stock against accidental damage around the shaft so that no loose, uncontrolled spinning of the shaft does not exceed the outline of the vehicle, endanger the safety of persons and the safe function of buildings and track equipment and endanger the environment;</li><li>in to the time to ensure the above coupling and cardan shaft by safety stirrups or cage against accidental damage to the surroundings when releasing the shaft or shaft parts, includ into the mandatory charge of regular maintenance of rail vehicles (operating treatment and periodic inspection) body control pipes of cardan and connecting shafts, the purpose of preventive control to a single body pipes and cardan shaft coupling at all possible rail vehicles in the shortest possible time.</li></ul> <p><b>Addressed</b> to Czech National Safety Authority (Drážní úřad):</p> <ul style="list-style-type: none"><li>It is recommended to take own measure forcing implementation of the above recommendations by all railway undertakings using the operation of railway transport in possibly a rolling stock and for their approval.</li></ul>
22.10.2011	Train derailment:: Branch Odra, between Ostrava Kuncice and Ostrava Svinov stations
	<p><b>Addressed</b> to infrastructure manager Správa železniční dopravní cesty, s. o.:</p> <ul style="list-style-type: none"><li>it is recommended to hurry on introduction of ETCS to main and regional lines.</li></ul> <p><b>Addressed</b> to infrastructure manager:</p> <ul style="list-style-type: none"><li>the lines where the long term will not be introduced into operation ETCS to install the technical equipment for emergency stopping of trains, whose security is threatened, which will be activated automatically unlawful driving of a rolling stock as the main signal.</li></ul> <p><b>Addressed</b> to railway transporters:</p> <ul style="list-style-type: none"><li>it is recommended to hurry on installation of mobile components of ETCS into railway vehicles in order to allow use of full functionality of ETCS as soon as the infrastructure is ready.</li></ul> <p><b>Addressed</b> to Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>it is recommended to take own measure forcing implementation of the above recommendations.</li></ul>
17.11.2011	Train derailment:: between Pardubice Rosice nad Labem and Steblova stations
	<p><b>Addressed</b> to infrastructure manager Správa železniční dopravní cesty, s. o.:</p> <ul style="list-style-type: none"><li>in the shortest time to the beginning of winter to perform extraordinary checks of occurrence and condition of defects of the rail focusing on the occurrence of</li></ul>





Date of occurrence	Title of the investigation, Safety recommendation
	<p>developing of cracks on the all tracks.</p> <ul style="list-style-type: none"><li>to reduce the time among defectoscopic checks to ensure safe operation.</li></ul> <p><b>Addressed</b> to Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) in the Czech Republic.</li></ul>
22.11.2011	Trains collision with an obstacle: in Hradcany stop
	<p><b>Addressed</b> to infrastructure manager Správa železniční dopravní cesty, s. o.:</p> <ul style="list-style-type: none"><li>In the shortest time by the end of 2012 to perform extraordinary checks of all obstacles in database and to compare it with real obstacles on the all tracks.</li><li>To create an effective way of checks of registration of obstacles to prevent different state between the data from photogrammetric measurements and real obstacles which are located on the track.</li></ul> <p><b>Addressed</b> to Czech National Safety Authority:</p> <ul style="list-style-type: none"><li>It is recommended to také own measure forcing implementation of the above recommendations.</li></ul>
05.12.2011	Other: SPAD in Baska station
	<p><b>Addressed</b> to infrastructure manager Správa železniční dopravní cesty, s. o.:</p> <ul style="list-style-type: none"><li>It is recommended to hurry on introduction of ETCS to both main and regional lines, in accordance with the wording of previous documents „Vydání bezpečnostního doporučení“ (The issue of safety recommendations), No. 6-538/2009/DI-1 on 18<sup>th</sup> March 2010, No. 739/2010/DI on 15<sup>th</sup> December 2010 and No. 355/2012/DI on 01<sup>st</sup> June 2012;</li><li>on the lines where the ETCS is not going to be introduced into operation to install the technical equipment for emergency stopping of trains. This equipment will be automatically activated when the rolling stock illegally passes signal at danger (eg system VNPN safety system which alerts of unauthorized passing signals);</li><li>at the stations that are permanently occupied and controlled by the train dispatchers not to allow departure of the train with the passengers (regular or extraordinary) from an area for entrance and exit of passengers only by using of signal.</li></ul> <p><b>Addressed</b> to railway undertaking České dráhy, a. s.:</p> <ul style="list-style-type: none"><li>it is recommended to hurry on installation of mobile components of ETCS into railway vehicles in order to allow use of full functionality of ETCS as soon as the infrastructure is ready;</li><li>to modify technological procedures in order to the train driver of the leading rolling stock of the train with passengers in an area for entrance and exit of passengers at the station where the departure of the rolling stock is allowed only by using of signal always initiated before putting of the train in motion, warning signal which</li></ul>





Date of occurrence	Title of the investigation, Safety recommendation
	<p>will be given verbally, by signaling tool or by technical equipment.</p> <p><b>Addressed</b> to Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) and railway undertaking (RU) in the Czech Republic.</li></ul>
08.12.2011	<p>Other: railway vehicle movement events in the siding "Vlečka CEZ" Chvaletice</p> <p><b>Addressed</b> to infrastructure manager AWT, a. s.:</p> <ul style="list-style-type: none"><li>to create technological procedures for the siding, where the rope shunting operation is used, to order sufficient procedures for ensuring of the rolling stock against driving.</li></ul> <p><b>Addressed</b> to Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>it is recommended to take own measure, forcing implementation of the above recommendation also for other infrastructure managers (IM) and railway undertakings (RU) on the sidings where the rope shunting operation is used.</li></ul>
20.01.2012	<p>Level-crossing accident: km 54,854 in Breznice station</p> <p><b>Addressed</b> to infrastructure manager Správa železniční dopravní cesty, s. o.:</p> <ul style="list-style-type: none"><li>CZ NIB recommends to increase safety at the level crossings which are equipped with warning lights so that at reconstruction and modernization of railway tracks and the level crossings there was designed and installed only level crossing safety equipment with warning lights and barriers.</li></ul> <p><b>Addressed</b> to Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) in the Czech Republic.</li></ul>
24.01.2012	<p>Trains collision with an obstacle: in the siding "Vlečka Dřevosklad" Adamov</p> <p><b>Addressed</b> to carriers and operators track – siding ČD Cargo, a. s.:</p> <ul style="list-style-type: none"><li>in TDPV remove the rules for safe rail transport of organizing the chapters on transport and the operation of the track and place them in chapter 3. Organizování drážní dopravy. Complete and edit TDPV in chapter 3. Organizování drážní dopravy so that it is clear and understandable;</li><li>develop a written information within the meaning of § 101 paragraph (3) of Act No. 262/2006 Sb., zákoník práce, v platném znění, and work on the basis of risk assessment service "Dřevoskladu Adamov" the corresponding rules in TDPV.</li></ul> <p><b>Addressed</b> to siding owner Mendel University in Brno:</p>



Date of occurrence	Title of the investigation, Safety recommendation
	<ul style="list-style-type: none"><li>develop a written information within the meaning of § 101 paragraph (3) of Act No. 262/2006 Sb., zákoník práce, v platném znění, and work on the basis of risk assessment and siding operation of railway transport on a siding by CD Cargo, as appropriate rules in their own local regulations.</li></ul>
27.02.2012	Level-crossing accident: km 247,813 between Protivin stop and Protivin station
<p><b>Addressed</b> to infrastructure manager Správa železniční dopravní cesty, s. o.:</p> <p>Based on result of the investigation of causes and circumstances of this accident and due to specific local condition and repeated accidents at this level crossing it is recommended:</p> <ul style="list-style-type: none"><li>to complete the level crossing safety equipment by other elements which would supply warning and contribute to improving of safety at the level crossing, for example barriers.</li></ul>	
29.02.2012	Level-crossing accident: km 186,463 in Kastice station
<p><b>Addressed</b> to infrastructure manager Správa železniční dopravní cesty, s. o.:</p> <ul style="list-style-type: none"><li>CZ NIB recommends to increase safety at the level crossings which are equipped with warning lights so that at reconstruction and modernization of railway tracks and the level crossings there was designed and installed only level crossing safety equipment with warning lights and barriers.</li></ul> <p><b>Addressed</b> to Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) in the Czech Republic.</li></ul>	
05.03.2012	Level-crossing accident: km 4,740 between Kobyli na Morave and Velke Pavlovice stations
<p><b>Addressed</b> to infrastructure manager Správa železniční dopravní cesty, s. o.:</p> <ul style="list-style-type: none"><li>CZ NIB recommends to increase safety at the level crossings which are equipped with warning lights so that at reconstruction and modernization of railway tracks and the level crossings there was designed and installed only level crossing safety equipment with warning lights and barriers.</li></ul> <p><b>Addressed</b> to Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) in the Czech Republic.</li></ul>	

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## ACCIDENT SUMMARY

Grade:	accident.
Date and time:	20th October 2010, 14:29 (12:29 GMT).
Occurrence type:	accident to persons caused by rolling stock in motion.
Description:	2 track maintenance at the track No. 2. Fast train No. 612 went on this track No. and so they entered on the track No. 1. At the same time workers was struck by Eurocity train No. 175 which went on the track No. 1.
Type of train:	Eurocity train No. 175.
Location:	open line between Prackovice nad Labem and Lovosice stations, track No. 1 (it is a double track), km 496.093; Praha Bubeneč – Děčín hl. n. main line).
Parties:	Správa železniční dopravní cesty, s. o. (IM); ČD, a. s. (RU).
Consequences:	2 fatality of workers; total cost CZK 10 000,-
Direct cause:	operational – trackside personnel (unauthorized entrance of 2 workers on to track No. 1).
Underlying cause:	human factor – they didn't observe the technological procedures during the maintenance at the track.
Root cause:	monitoring – no difference between the situation when the track is under the maintenance and when is operate normally. This led to the nonacceptance of necessary measures for work at the track. information – lack of information between the person who is responsible for contracts (IM) and maintenance workers (stakeholders) who are working at the track.

### Recommendations:

Addressed to infrastructure manager Správa železniční dopravní cesty, státní organizace:

- It is recommended to ensure to give the relevant information to maintenance workers about the situation when the track is under the maintenance and when is operate normally including necessary measures for work at the track.
- It is recommended to ensure the transmission of information to personnel's who are responsible for safety work during the maintenance at the track, including the delivery of other necessary information.

Addressed to Czech National Safety Authority (Drážní Úřad):

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- It is recommended to take their own measures to ensure adoption of the above recommendation by all railway infrastructure managers with in Czech Republic.

#### ACCIDENT SUMMARY

Grade:	accident
Date and time:	5 <sup>th</sup> June 2011, 12:24 (10:24 GMT)
Occurrence type:	train derailment with associated track buckles
Description:	derailment of 13 wagons (seventh to nineteenth wagons in the train) of the freight train No. Vn 52061 on track buckles while running
Type of train:	freight train No. Vn 52061
Location:	open line between Vyškov na Moravě and Ivanovice na Hané stations, km 50,765 (Nezamyslice – Brno hl. n. main line)
Parties:	Správa železniční dopravní cesty, statní organizace (IM) ČD Cargo, a. s. (RU of the freight train No. Vn 52061)
Consequences:	no fatality, no injury total cost CZK 1 039 368,65
Direct causes:	1) infrastructure – inadequate general technical condition of the long welded rails  2) operations (maintenance personnel) – no reaction of employees and management of IM on the situation which took at least 3 days
Contributing factors:	formation of fixed (anchor) location in the long welded rails with wrong grasp of the rail fastening too long and heavy duty of the long welded rails (the long welded rails had been in use since 1986)
Underlying causes:	1) maintenance processes – poor regular monitoring and inspections of infrastructure performed by employees  2) maintenance processes – unidentified the technical condition of the rail fastening  3) maintenance processes – poor and lack of maintenance of the long welded rails

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	4) maintenance processes – poor condition of the rail fastening
	5) maintenance processes – a long-term failure of geometry of track was identified but not removed
Root cause:	SMS (Structure and responsibility / Information) – complete failure of control system of IM (at all levels of management) which was over a long period poorly performed

Recommendations:

Addressed to infrastructure manager Správa železniční dopravní cesty, státní organizace:

- It is recommended to determine the maximum lifetime of rubber pad inserted under the flange of a rail because of their verifiable degradation due to the traffic
- It is recommended to define maximum wear and tear of rubber pad inserted under the flange of a rail and maximum acceptable amount of fully worn out pads per certain distance of a track; if this amount is exceeded than all rubber pads must be replaced or other safety measures taken
- It is recommended to determine the maximum lifetime or wear and tear of double spiral rings if their location is in rail fastening system
- It is recommended to check technical condition of rubber pads inserted under the flange of a rail of all long welded rails older than 10 years before hot weather in 2012 comes
- It is recommended to check technical condition and flexibility of double spiral rings of all long welded rails older than 10 years before hot weather in 2012 comes
- It is recommended to make a special knowledge test for all managers who are involved in control and maintenance activities and remove defects of long welded rails before hot weather in 2012 comes
- It is recommended to make an analysis of all possible work tasks and activities which are need for track maintenance and checks, to determine the average time demands and these results of the analysis compare with actual personnel capacities involved. Based on these results to take other appropriate measures.

Addressed to Czech National Safety Authority (Drážní úřad):

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- It is recommended to take their own measures to ensure adoption of the recommendations 1 – 5 by all infrastructure managers of main and regional lines within Czech Republic



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## ACCIDENT SUMMARY

Grade:	accident
Date and time:	11 <sup>th</sup> July 2011, 8:49 (6:49 GMT)
Occurrence type:	trains collision with an obstacle
Description:	collision of freight train No. 67261 with an obstacle (infrastructure maintenance equipment) in the switch No. 89. This switch was out of service due to its repair
Type of train:	freight train No. 67261
Location:	Olomouc hl. n. station, switch No. 89, km 86,515; (Přerov – Česká Třebová main line)
Parties:	SŽDC, s. o (IM) ČD Cargo, s. .s. (RU of the freight train) Sdružené společnosti TOMI-REMONT, a. s., a České opravny a strojírny PIRELL Česká Třebová s. r. o. (entity in charge of maintenance)
Consequences:	no fatality, no injury total cost CZK 41 200,-
Direct cause	operations (station personnel's violation) – a permission to set route for the freight train via switch under maintenance
Underlying cause:	1) allowing unwanted setting of train route via switch No. 89  2) design – a workplace was not equipped with an approved tool which marks or ensures that interlocking system can't set any route via such switch
Root cause:	SMS – lack of information in procedures. The staff who is responsible for protection of impassable place didn't procedures for preventing unwanted setting of train route via switch or track which is closed to traffic and where temporary signal "Stop, track closed" can't be used
Recommendations:	
Addressed to infrastructure manager Správa železniční dopravní cesty, státní organizace:	

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- It is recommended to define a procedure for preventing unwanted setting of train route via switch or track which is closed to traffic and where temporary signal "Stop, track closed" can't be used. This procedure should ensure that interlocking system can't set any route via such switch or track.

Addressed to Czech National Safety Authority (Drážní úřad):

- It is recommended to take their own measures to ensure adoption of the above recommendation by all railway infrastructure managers within Czech Republic.





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## ACCIDENT SUMMARY

Grade:	serious accident.
Date and time:	21 <sup>st</sup> July 2011, 11:46 (09:46 GMT).
Occurrence type:	collision with a tree with derailment.
Description:	approaching passenger train No 5408 between the railway stations Hodkovice nad Mohelkou a Rychnov u Jablonce nad Nisou the disproven tree crown with subsequent derailment.
Type of a train:	passenger train No. 5408.
Location:	national railway, single track, between the railway stations Hodkovice nad Mohelkou a Rychnov u Jablonce nad Nisou, km 140,722.
Parties:	Správa železniční dopravní cesty, státní organizace (IM); ČD, a. s. (RU).
Consequences:	6 injured (5 travel and attendants); total cost CZK 54 940,-
Direct cause:	refutation and subsequent fall of the tree on the rail track because of its excessive load of other uprooted trees.
Contributory factor:	not found.
Underlying cause:	failure to remove source of danger to the railway track (the tree) from the protection zone railway line.
Root cause:	unsystematic, fragmented and unemphatic approach to assessing and obviating sources of danger to the track in the protection zone and don't accepts adequate measures to prevent incidents.
Recommendations:	Adressed to infrastructure manager Správa železniční dopravní cesty, s. o.:

- own measures gradually ensure removal of threat track (trees) that interfere transition cross section (and their Impact distance) growing on plots in protection zone track

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where the right-holder economy, then preferentially in locations subject to frequent to tree collapses;

- consistently act on the Elimination these sources of danger to the railway with other land owners in the protection zone tracks, including and in cases of dispute to communicate with Czech National Safety Authority.

Addressed to Czech National Safety Authority (NSA) in conjunction Czech Ministry of Transport:

- Initiate legislative change at least to the extent that the rail operator was given possibility to remove trees in the protected zone track without permission, as in the protected zone of the electricity and gas networks;
- accept serious measures to eliminate sources of danger Railways (trees) which interferes Impact distance transition cross section growing on plots in protected zone of track.



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## ACCIDENT SUMMARY

Grade:	accident.
Date and time:	29th July, 15:12 (13:12 GMT).
Occurrence type:	injury of a passenger - child.
Description:	injury of a passenger - child who got out the passenger train No. 4813 in front of arriving passenger train No. 4814 in a place which was not determined for boarding and getting out of passengers.
Type of train:	the passenger trains No. 4813 and No. 4814.
Location:	Vladislav station, line No. 2, km 43,905-
Parties:	Správa železniční dopravní cesty, státní organizace (IM); České dráhy, a. s. (RU); injured passenger.
Consequences:	Slightly injury of passenger – child.
Direct cause:	getting of a passenger out the train in a place which was not determined for it.
Contributing factors:	insufficient caution of passenger in a place which was not accessible to the public
Underlying cause:	1) confusion of passengers by information system that announced „Vladislav stop” in a place which was not determined for boarding and getting out of passengers. 2) confusion of passengers which was given by unlocking of central controlled doors of the train.
Root cause:	internal – rules of infrastructure manager does not contain procedures for trains staff to ensure safety of passengers in case when the train extraordinarily stopped in a place which was not determined for boarding and getting out of passengers.

### Recommendations:

Addressed to railway undertaking České dráhy, a. s.:

- to equip all rolling stocks - which are equipped with the information system, which is automatically triggered by unlocking of central controlled doors of the train - with equipment so that the driver could control information system and in case of need stop the report;

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- to equip all new rolling stock which will be given into the service with equipment which unable to driver to control information system and in case of need to stop the report.

Adressed to infrastructure manager Správa železniční dopravní cesty, s. o.:

- to improve internal rule „SŽDC (ČD) D2 Předpis pro organizování a provozování drážní dopravy” about procedures which would ensure safety of passengers in case when the train extraordinarily stop in a place which was not determined for boarding and getting out of passengers.

Addressed to Czech National Safety Authority (Drážní úřad):

- it is recommended to take own measure forcing implementation of the above recommendations for other railway undertaking which use the same and similar rolling stocks when by unlocking of central controlled doors of the train automatically triggers information system according to safety recommendation No. 1 and for other in frastructure manager according to safety recommendation No. 2.



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## ACCIDENT SUMMARY

Grade:	serious accident.
Date and time:	29 <sup>th</sup> July 2011, 10:15 (08:15 GMT).
Occurrence type:	derailment and rerailing inactive steam locomotive during train running with subsequent derailment of four historical rail vehicles.
Description:	repeated derailments (4x) and spontaneous rerailing (3) idle steam locomotive No. 990 017-6 (original designation 310.922), sorted on the train No. 1 nsl 62870, between the railway stations Okříšky and Jihlava, subsequent derailment of this steam locomotive and 3 historic cars and disruption in railway station Jihlava.
Type of train:	inactive steam locomotives No. 990.017-6 and four historic rail vehicles ranked in the freight train.
Location:	between railway stations Okříšky and Jihlava.
Parties:	Správa železniční dopravní cesty, s. o. (IM); České dráhy, a. s. (RU).
Consequences:	no fatality and injury; damage on railway vehicles CZK 2 611 000,- damage on railway track CZK 6 213 000,- total cost CZK 8 824 000,-
Direct cause:	technical problem in right sling suspension (steam locomotive No. 990.017-6).
Underlying cause:	none.
Root cause:	none.

### Recommendations:

Addressed to railway undertaking České dráhy, a. s.:

- unify data in the prescription “ČD D2/1 Doplněk s technickými údaji k Dopravním předpisům, z přílohy Tabulka 1h Hnací vozidla historická”, the basic technical data on rolling stock listed on the license.



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Addressed to Czech National Safety Authority (Dražní úřad):

- it is recommended to take own measure forcing implementation of the above recommendation (see action director “opatření ředitele O12 č. j: 695/2011-O12”) by all railway undertakings.



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## ACCIDENT SUMMARY

Grade:	serious accident.
Date and time:	23 <sup>rd</sup> August 2011, 21:49 (19:49 GMT).
Occurrence type:	unauthorized ride of train with subsequent collision.
Description:	Regional passenger train No. 9326 passed a signal at danger and collided with shunting movement. Both trains derailed and shunting operation began to burn. Result of this serious accident was the ecological disaster.
Type of train:	passanger train and shunting operation.
Location:	Praha-Libeň station, main signal Lc06, km 404,572 and area switch No. 34N in km 404,639;
Parties:	Správa železniční dopravní cesty, státní organizace (IM); České dráhy, a. s. (RU); České dráhy, Cargo a. s. (RU).
Consequences:	0 fatality, 5 injury; total cost CZK 27 405 556,-; disruption to traffic: 2 days 22 hours 5 minutes.
Direct cause:	passenger train No. 9326 driver's operational error - disrespect of main signal Lc06 with signal "Stop".
Contributory factor:	absence of technical equipment preventing train from passing signal at danger.
Underlying cause:	disrespect of infrastructure managers' technological procedures which are set for the departure of trains from the railway station, especially:  putting of the passenger train No. 9326 at 6th station track into motion from the stop for entry and exit of passengers at the 1st platform even though the signal "Stop" of the signal Lc06 was visible and dispatcher didn't give any instruction.
Recommendations:	
Addressed to infrastructure manager Správa železniční dopravní cesty, s. o.:	
	<ul style="list-style-type: none"><li>It is recommended to hurry on introduction of ETCS to both main and regional lines, in accordance with the wording of previous documents „Vydání bezpečnostního</li></ul>

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doporučení“ (The issue of safety recommendations), No. 6-538/2009/DI-1 on 18<sup>th</sup> March 2010, No. 739/2010/DI on 15<sup>th</sup> December 2010 and No. 355/2012/DI on 01<sup>st</sup> June 2012;

- on the lines where the ETCS is not going to be introduced into operation to install the technical equipment for emergency stopping of trains. This equipment will be automatically activated when the rolling stock illegally passes signal at danger (eg system VNPN safety system which alerts of unauthorized passing signals);
- at the stations that are permanently occupied and controlled by the train dispatchers not to allow departure of the train with the passengers (regular or extraordinary) from an area for entrance and exit of passengers only by using of signal.

Addressed to railway undertaking České dráhy, a. s.:

- it is recommended to hurry on installation of mobile components of ETCS into railway vehicles in order to allow use of full functionality of ETCS as soon as the infrastructure is ready;
- to modify technological procedures in order to the train driver of the leading rolling stock of the train with passengers in an area for entrance and exit of passengers at the station where the departure of the rolling stock is allowed only by using of signal always initiated before putting of the train in motion, warning signal which will be given verbally, by signaling tool or by technical equipment.

Addressed to Czech National Safety Authority (NSA):

- it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) and railway undertaking (RU) in the Czech Republic.





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## ACCIDENT SUMMARY

Grade:	accident.
Date and time:	7 <sup>th</sup> September 2011, 14:21 (13:21 GMT).
Occurrence type:	derailment of the train No. 48221.
Description:	derailment of two rolling stocks during arrival of the freight train to the station.
Type of train:	freight train No. 48221.
Location:	track line Přerov – Břeclav, north station head of Přerov station, switch No. 208ab, km 182,666.
Parties:	SŽDC, s. o (IM); ČD Cargo, a. s.(RU).
Consequences:	0 injury total cost CZK 676 329,-
Direct cause:	loss of a vertical wheel force of the right wheel of the first axle of the first bogie of rolling stock due to a defect in the station line No. 46 and switch No. 208ab in Přerov station.
Contributory factor:	none.
Underlying cause:	insufficient ensuring of adequate periodic inspection and maintenance of the track on the accident-site.
Root cause:	none.

### Recommendations:

Addressed to infrastructure manager Správa železniční dopravní cesty, s. o.:

- to improve technological procedures so that an interval of periodic inspections of wear and tear of switches and rails was determined not only in track lines and main station lines but also in other station lines and this measurement was documented.

Addressed to Czech National Safety Authority (NSA):

- it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) in the Czech Republic.

Addressed to Network of National Safety Authorities of European Railway Agency:

- in full range to implement the safety recommendation which was issued on the basis of accident (CZ 736), 22<sup>th</sup> July 2009 in Olomouc main station:

it is recommended to develop and adopt within EU member states a common system of identification of detachable part of freight wagons' suspension, which allows investigators to recognize original positioning of each of the parts spread around after an accident.



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## ACCIDENT SUMMARY

Grade:	accident.
Date and time:	17 <sup>th</sup> October 2011, 04:05 (02:05 GMT).
Occurrence type:	train collision with an obstacle.
Description:	collision of broken part of cardan shafts of driving rail vehicle beyond the contour of the vehicle with section of construction of the track, during passenger train ride with subsequent leakage of environmentally harmful substances and fire.
Type of train:	passenger train No. 3442.
Location:	open line between Ostrava-Třebovice and Děhylov stations, km 265,960.
Parties:	SŽDC, s. o (IM); ČD, a. s. (RU of the passenger train).
Consequences:	0 fatality, 0 injury total cost CZK 11 607 808,-
Direct cause:	the body breakage pipes cardan shaft auxiliary drives of engine.
Contributory factor:	none.
Underlying cause:	unbalance of the body mounting pipe cardan shaft in a way that heat affected the quality and plasticity of the material of the body pipe;  lack of safety stirrups or cage to prevent unwanted destruction around cardan shafts, including the overlap outside contour of the rolling stock, in the event of a fault that affects the release of a rotating shaft or its part.
Root cause:	none.
Recommendations:	
Addressed to railway undertaking České dráhy, a. s.:	<ul style="list-style-type: none"><li>strengthen of rolling stock used in cardan shaft unbalance in a way that heat does not affect the quality and plasticity of the shaft material;</li></ul>

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- to use safety stirrups or cage for security of coupling and cardan shafts used in rolling stock against accidental damage around the shaft so that no loose, uncontrolled spinning of the shaft does not exceed the outline of the vehicle, endanger the safety of persons and the safe function of buildings and track equipment and endanger the environment;
  - in to the time to ensure the above coupling and cardan shaft by safety stirrups or cage against accidental damage to the surroundings when releasing the shaft or shaft parts, includ into the mandatory charge of regular maintenance of rail vehicles (operating treatment and periodic inspection) body control pipes of cardan and connecting shafts, the purpose of preventive control to a single body pipes and cardan shaft coupling at all possible rail vehicles in the shortest possible time.

Addressed to Czech National Safety Authority (Drážní úřad):

- It is recommended to take own measure forcing implementation of the above recommendations by all railway undertakings using the operation of railway transport in possibly a rolling stock and for their approval.



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## ACCIDENT SUMMARY

Grade:	serious accident.
Date and time:	22 <sup>nd</sup> October 2011, 19:26 (17:26 GMT).
Occurrence type:	regional passenger train passed a signal at danger (entrance signal showing red aspect) followed by collision with buffer and derailment of all rolling stock.
Description:	train driver disrespected the signal "Stop" branch Odra followed by collision with buffer and derailment of all rolling stock. Type of train - regional passenger train No. 3428.
Type of train:	regional train No. 3428.
Location:	branch Odra, open line between Ostrava-Kunčice and Ostrava-Svinov stations, km 37.268.
Parties:	Správa železniční dopravní cesty, státní organizace (IM); České dráhy, a. s. (RU).
Consequences:	7 injured (6 passengers and train driver); total cost CZK 10 649 688,-
Direct cause:	train driver disrespected the signal "Stop", human error.
Underlying cause:	disregarding the proceedings and monitoring tracks (setting information system for passengers and sending SMS).
Root cause:	none.

### Recommendations:

Addressed to infrastructure manager Správa železniční dopravní cesty, s. o.:

- it is recommended to hurry on introduction of ETCS to main and regional lines.

Addressed to infrastructure manager:

- the lines where the long term will not be introduced into operation ETCS to install the technical equipment for emergency stopping of trains, whose security is threatened, which will be activated automatically unlawful driving of a rolling stock as the main signal.

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Addressed to railway transporters:

- it is recommended to hurry on installation of mobile components of ETCS into railway vehicles in order to allow use of full functionality of ETCS as soon as the infrastructure is ready.

Addressed to Czech National Safety Authority (NSA):

- it is recommended to take own measure forcing implementation of the above recommendations.



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## ACCIDENT SUMMARY

Grade:	accident.
Date and time:	17 <sup>th</sup> November 2011, 22:48 (21:48 GMT).
Occurrence type:	train derailment.
Description:	derailment of locomotive of regional passenger train due to breaking of a rail.
Type of train:	regional passenger train No. 6256.
Location:	single track line Pardubice hl. n. - Jaroměř, open line between Pardubice-Rosice nad Labem and Stéblová stations, km 4.250.
Parties:	Správa železniční dopravní cesty, státní organizace (IM); České dráhy, a. s. (RU).
Consequences:	no injuries. total cost CZK 389 254,-
Direct cause:	defectoscopic defects of the running part of rail which consequently resulted in developing of cracks which led to breakings of a part of rail.
Underlying cause:	1) not taking appropriate measures and bad checks by infrastructure manager in connection with condition of visible defects of the rail which consequently resulted in developing of cracks;  2) poor technical condition of the rail with visible defects which consequently resulted in developing of cracks which led to breakings of the rail.
Root cause:	none.

### Recommendations:

Addressed to infrastructure manager Správa železniční dopravní cesty, s. o.:



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- in the shortest time to the beginning of winter to perform extraordinary checks of occurrence and condition of defects of the rail focusing on the occurrence of developing of cracks on the all tracks.
  - to reduce the time among defectoscopic checks to ensure safe operation.

Addressed to Czech National Safety Authority (NSA):

- it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) in the Czech Republic.





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## ACCIDENT SUMMARY

Grade: accident.

Date and time: 22<sup>nd</sup> November 2011, 23:15 h (GMT 21:15).

Occurrence type: trains collision with an obstacle.

Description: collision of special shipment with loading rate exceeded which have been transported on the special rolling stock by the freight train Pn 47824 with edge of platform on Hradčany stop.

Type of train: freight train Pn 47824 with special rolling stock for transporting of excessive shipments.

Location: double track line Brno hl. n. – Kutná Hora hl. n., track line No. 2, km 27,832, Hradčany stop.

Parties: ČD Cargo, a. s. (RU);  
Správa železniční dopravní cesty, státní organizace (IM).

Consequences: no injuries;  
total cost CZK 198 907,-

Direct cause: ride of the train with excessive cargo via place which was not mentioned in the transport measures.

Underlying cause:

- not indicated data about obstacles (platform on Hradčany stop) in the database of obstacles;
- repeated not detecting of registration in database of obstacles (platforms on Hradčany stop) and not detecting of this failure during checks.

Root cause: none.

### Recommendations:

Addressed to infrastructure manager Správa železniční dopravní cesty, státní organizace:

- In the shortest time by the end of 2012 to perform extraordinary checks of all obstacles in database and to compare it with real obstacles on the all tracks.
- To create an effective way of checks of registration of obstacles to prevent different state between the data from photogrammetric measurements and real obstacles which are located on the track.

Addressed to Czech National Safety Authority:

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- It is recommended to take own measure forcing implementation of the above recommendations.



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## ACCIDENT SUMMARY

Grade:	incident.
Date and time:	5 <sup>th</sup> December 2011, 14:58 h (13:58 GMT).
Occurrence type:	regional passenger train No. 3127 passed a signal at danger (exit signal showing red aspect).
Description:	unauthorized ride of regional passenger train No. 3127 behind the main signal S1 into train route of regional passenger train No. 3150 after previous unlawful departure of regional passenger train No. 3127 from the area for entrance and exit of passengers (station Baška).
Type of train:	regional passenger train.
Location:	railway station Baška, main (departures) signal S1, km 108,655.
Parties:	SŽDC, s. o (IM); ČD, a. s. (RU of the regional passenger train No. 3127 and No. 3150).
Consequences:	no injuries; total cost CZK 0,-
Direct cause:	train driver's operational error (didn't respect red signal).
Contributory factor:	absence of technical equipment preventing train from passing signal at danger.
Underlying cause:	<ul style="list-style-type: none"><li>• unauthorized putting of regional passenger train No. 3127 set into motion when the main (departures) signal S1 of railway in station Baška prohibited movement of the train;</li><li>• prioritizing of monitoring of the situation along the departing train sets before watching the track lines and signals from leader rolling stock and acting according to the findings.</li></ul>

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Root cause: not taking of adequate own measures to prevent similar incidents based on safety recommendations issued, No. 6-538/2009/DI-1 dated 18<sup>th</sup> March, 2010, after previous incidents of similar character on 16<sup>th</sup> February 2009, in the railway station Paskov.

Recommendations:

Addressed to infrastructure manager Správa železniční dopravní cesty, s. o.:

- It is recommended to hurry on introduction of ETCS to both main and regional lines, in accordance with the wording of previous documents „Vydání bezpečnostního doporučení“ (The issue of safety recommendations), No. 6-538/2009/DI-1 on 18<sup>th</sup> March 2010, No. 739/2010/DI on 15<sup>th</sup> December 2010 and No. 355/2012/DI on 01<sup>st</sup> June 2012;
- on the lines where the ETCS is not going to be introduced into operation to install the technical equipment for emergency stopping of trains. This equipment will be automatically activated when the rolling stock illegally passes signal at danger (eg system VNPN safety system which alerts of unauthorized passing signals);
- at the stations that are permanently occupied and controlled by the train dispatchers not to allow departure of the train with the passengers (regular or extraordinary) from an area for entrance and exit of passengers only by using of signal.

Addressed to railway undertaking České dráhy, a. s.:

- it is recommended to hurry on installation of mobile components of ETCS into railway vehicles in order to allow use of full functionality of ETCS as soon as the infrastructure is ready;
- to modify technological procedures in order to the train driver of the leading rolling stock of the train with passengers in an area for entrance and exit of passengers at the station where the departure of the rolling stock is allowed only by using of signal always initiated before putting of the train in motion, warning signal which will be given verbally, by signaling tool or by technical equipment.

3) Addressed to Czech National Safety Authority (NSA):

- it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) and railway undertaking (RU) in the Czech Republic.

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## ACCIDENT SUMMARY

Grade:	accident.
Date and time:	8 <sup>th</sup> December 2011, 06:48 (05:48 GMT).
Occurrence type:	uncontrolled movement and consequent collision of two rollings stocks with subsequent derailment one of them.
Description:	during shunting of empty rolling stock from the rotary tippler from the line No. 104b to the line No. 102 (after the end of the rope shunting operation) two independently moving rolling stock with an interval of 3 minutes run away and consequently first rolling stock derailed on the line No. 100b, over not folded derailer No. Vk7 and collided with the second rolling stock which drove into it.
Type of train:	uncontrolled movement of two rolling stock during shunting operation.
Location:	the siding „Vlečka ČEZ, a.s. - power plant Chvaletice“.
Parties:	AWT, a. s. (IM and RU); ČEZ, a. s. (owner of the siding); E S B, a. s. (equipment rope operator); ČD Cargo, a. s. (owner of rollings stocks).
Consequences:	no injuries; total cost CZK 168.128,-
Direct cause	higher speed of rolling stock than chosen technical equipment was able to eliminated.
Contributory factor:	<ul style="list-style-type: none"><li>• no observation of the ride of the first rolling stock to a free line No. 102 and insufficient attention to the climatic conditions which have influence to the movement of rolling stock and adhesion conditions;</li><li>• strong gusty wind blowing in the direction of the ride of the rolling stock.</li></ul>

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Underlying cause: insufficient ensuring of rolling stock against driving in the case when the climatic conditions are bad.

Root cause: technological procedures of infrastructure manager of the siding insufficiently ensures the rolling stock against driving in the case when the climatic conditions are bad.

Recommendations:

Addressed to infrastructure manager AWT, a. s.:

- to create technological procedures for the siding, where the rope shunting operation is used, to order sufficient procedures for ensuring of the rolling stock against driving.

Addressed to Czech National Safety Authority (NSA):

- it is recommended to take own measure, forcing implamentation of the above recommendation also for other infrastructure managers (IM) and railway undertakings (RU) on the sidings where the rope shunting operation is used.



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## ACCIDENT SUMMARY

Grade: accident.

Date and time: 20<sup>th</sup> January 2011, 11:45 (10:45 GMT).

Occurrence type: level crossing accident.

Description: collision of passenger train No. 7907 at the level crossing with a lorry.

Type of train: passenger train No. 7907.

Location: active level crossing P 522 equipped with warning lights, km 54,854, Březnice station.

Parties: Správa železniční dopravní cesty, státní organizace (IM);  
České dráhy, a. s. (RU);  
Driver of the lorry (level crossing user).

Consequences: 1 fatality (driver of the lorry), 7 injury (passengers ~~on the train~~);  
total cost 2 057 480 CZK.

Direct cause: third party (truck driver's violation).

Underlying cause: none.

Root cause: none.

### Recommendations:

Adressed to infrastructure manager Správa železniční dopravní cesty, s. o.:

- CZ NIB recommends to increase safety at the level crossings which are equipped with warning lights so that at reconstruction and modernization of railway tracks and the level crossings there was designed and installed only level crossing safety equipment with warning lights and barriers.

Adressed to Czech National Safety Authority (NSA):

- it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) in the Czech Republic.



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## ACCIDENT SUMMARY

Grade:	accident.
Date and time:	24 <sup>th</sup> January 2012, 13:48 (12:48 GMT).
Occurrence type:	collision with a freight wagon loader with injuries employee.
Description:	collision of woos loaders VOLVO with the first rolling stock for shunting at the point where it was on the footrest carrier employee.
Type of train:	shift train.
Location:	railway siding Mendelova univerzita v Brně, Dřevosklad Adamov, km 0,130.
Parties:	ČD Cargo, a. s. (IM); ČD Cargo, a. s. (RU); Mendelova univerzita v Brně (owner of the siding).
Consequences:	1 injury total cost CZK 3 950,-
Direct cause:	loader VOLVO enter into the circuit track – siding in which there was a threat to siding and siding railway transport, threats to health of employees and assets of the siding and the carrier and threats the health and property of persons moving illegally in the circuit siding.
Underlying cause:	rail transport carrier on a siding outside time, which was negotiated contract terms to satisfy the transportation needs of the individual owner of the siding, without observing the rules for handling extraordinary siding.
Contributing factors:	owner of the siding remain unresolved rail transport carrier on a siding outside time, which was negotiated contract terms and contrary to the rules set out in the local regulation siding owner.
Root cause:	none.
Recommendations:	



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Addressed to carriers and operators track – siding ČD Cargo, a. s.:

- in TDPV remove the rules for safe rail transport of organizing the chapters on transport and the operation of the track and place them in chapter 3. Organizování drážní dopravy. Complete and edit TDPV in chapter 3. Organizování drážní dopravy so that it is clear and understandable;
- develop a written information within the meaning of § 101 paragraph (3) of Act No. 262/2006 Sb., zákoník práce, v platném znění, and work on the basis of risk assessment service “Dřevoskladu Adamov” the corresponding rules in TDPV.

Addressed to siding owner Mendel University in Brno:

- develop a written information within the meaning of § 101 paragraph (3) of Act No. 262/2006 Sb., zákoník práce, v platném znění, and work on the basis of risk assessment and siding operation of railway transport on a siding by CD Cargo, as appropriate rules in their own local regulations.



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## ACCIDENT SUMMARY

Grade:	accident.
Date and time:	27 <sup>th</sup> February 2012, 08:00 (07:00 GMT).
Occurrence type:	accident at the level crossing with subsequent fire.
Description:	collision of the train set No. Sv 8094 with a lorry at the level crossing with consequent collision with infrastructure component and fire of locomotive and lorry
Type of train:	the train set No. Sv 8094.
Location:	railway track České Budějovice – Plzeň hl. n., open line between Protivín stop and Protivín station, active level crossing (equipped with warning lights), P1148, km 247,813.
Parties:	Správa železniční dopravní cesty, státní organizace (IM); České dráhy, a. s. (RU); driver of the lorry (level crossing user).
Consequences:	1 fatality (driver of the lorry); 1 injured (engine driver); total cost CZK 1 310 372,-
Direct cause:	third party – level crossing user (lorry driver's violation).
Underlying cause:	none.
Root cause:	none.

Recommendations:

Addressed to infrastructure manager Správa železniční dopravní cesty, státní organizace:

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Based on result of the investigation of causes and circumstances of this accident and due to specific local condition and repeated accidents at this level crossing it is recommended:

- to complete the level crossing safety equipment by other elements which would supply warning and contribute to improving of safety at the level crossing, for example barriers.



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## ACCIDENT SUMMARY

Grade: accident.

Date and time: 29<sup>th</sup> January 2012, 14:13 (13:13 GMT).

Occurrence type: level crossing accident.

Description: Collision of passenger train No. 1195 at the level crossing with a lorry with consequent derailment.

Type of train: the regional passenger train No. 1195.

Location: active level crossing P 1714 equipped with warning lights, km 186,463 in station Kaštice.

Parties: Správa železniční dopravní cesty, státní organizace (IM);  
České dráhy, a. s. (RU);  
Driver of the lorry (level crossing user).

Consequences: 0 fatality, 10 injury;  
total cost CZK 12 615 533.

Direct cause: third party – level crossing user (lorry driver's violation).

Underlying cause: none.

Root cause: none.

### Recommendations:

Adressed to infrastructure manager Správa železniční dopravní cesty, s. o.:

- CZ NIB recommends to increase safety at the level crossings which are equipped with warning lights so that at reconstruction and modernization of railway tracks and the level crossings there was designed and installed only level crossing safety equipment with warning lights and barriers.

Addressed to Czech National Safety Authority (NSA):

- it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) in the Czech Republic.



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## ACCIDENT SUMMARY

Grade: accident.

Date and time: 5<sup>th</sup> March 2012, 7:41 (6:41 GMT).

Occurrence type: level crossing accident.

Description: Collision of passenger train No. 14506 at the level crossing with a lorry with consequent derailment.

Type of train: the regional passenger train No. 14506.

Location: active level crossing P 7140 equipped with warning lights, km 4,740 between Kobylí na Moravě and Velké Pavlovice stations.

Parties: Správa železniční dopravní cesty, státní organizace (IM);  
České dráhy, a. s. (RU);  
Driver of the lorry Iveco (level crossing user).

Consequences: 0 fatality, 6 injury;  
total cost CZK 1 068 347.

Direct cause: third party – level crossing user (lorry driver's violation).

Underlying cause: none.

Root cause: none.

### Recommendations:

Adressed to infrastructure manager Správa železniční dopravní cesty, s. o.:

- CZ NIB recommends to increase safety at the level crossings which are equipped with warning lights so that at reconstruction and modernization of railway tracks and the level crossings there was designed and installed only level crossing safety equipment with warning lights and barriers.

Addressed to Czech National Safety Authority (NSA):

- it is recommended to take own measure forcing implementation of the above recommendations for other infrastructure manager (IM) in the Czech Republic.





