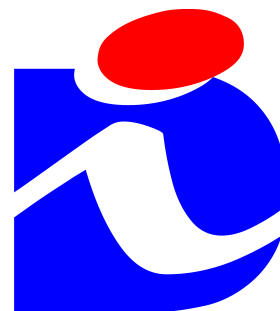




Czech Republic



**The Rail Safety Inspection
Office**

Annual Report of National Investigation Body

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

The Rail Safety Inspection Office – 2007

Czech Republic

A. Content

This Annual Report is an annual report issued by the National Investigation Body of the Czech Republic, The Rail Safety Inspection Office, for 2007, 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 in 2007
- the safety recommendations issued in 2007
- measures adopted on the basis of previously issued safety recommendations

B. Introduction

B1. Foreword

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.

B2. Characteristics of 2007

The National Investigation Body of the Czech Republic, The Rail Safety Inspection Office, recorded 4284 railway accidents and incidents in 2007. Of this, 4 events are classified as serious accident.

National Investigation Body conducted 24 independent investigations. Of this, 22 investigations were reported to European Railway Agency and 2 investigations weren't reported, because the investigated accidents occurred on sidings.

B3. Principle of Investigation

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

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 transport operators to investigate the causes and circumstances of railway accidents and incidents.

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 rail systems (guided transport)

B4. Implementation of EC Directive 2004/49/EC

The process of the implementation of Directive 2004/49/EC into the national legislation of the Czech Republic was completed on 1 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.

The National Investigation Body was established in the Czech Republic on 1 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.

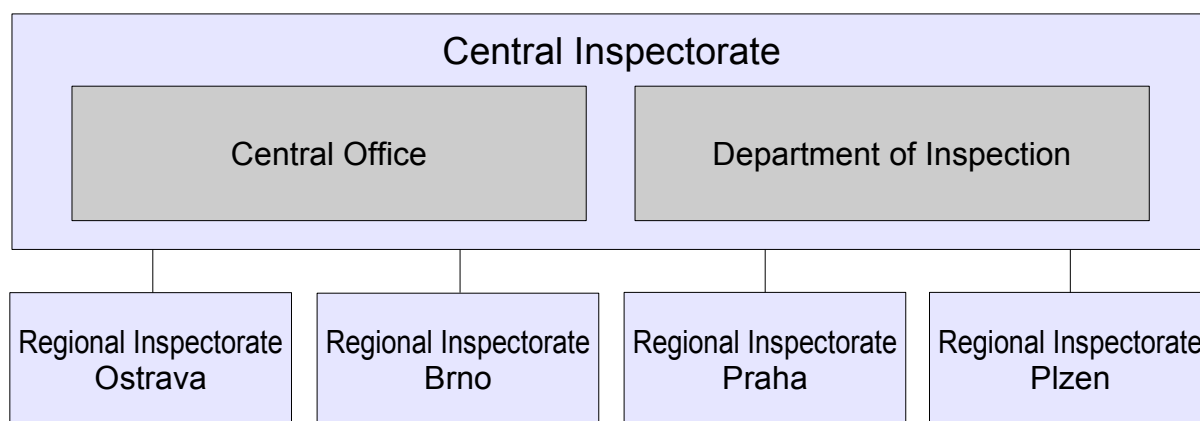
C. National Investigation Body

C1. The Rail Safety Inspection Office

On 1 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 conducting state supervision of railways. As an investigation body it is independent of any infrastructure manager, transport operator 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 54 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 the state supervision 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 preventative state supervision focusing on accident and incident prevention.

C2. Railway sector in the Czech Republic

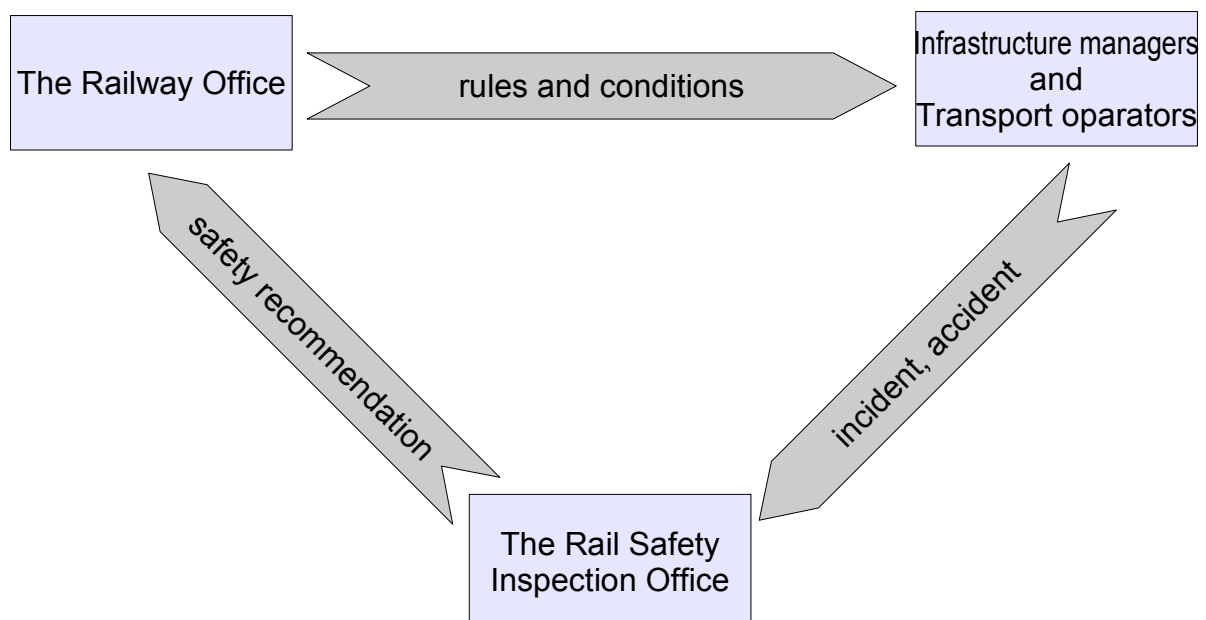
The arrangement of railway sector in the Czech Republic and relationships among the parties involved are defined in Act 266/1994 Coll., on Railways, as amended, and the implementing regulations thereto. The legislation applies to the following transport systems:

- 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 and takes care of the 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 basic rules via the railway legislation.
- **The Rail Safety Inspection Office** investigates railway accidents and incident and issues safety recommendations to The Railway Office.
- **The Railway Office** sets and adjusts safety rules for infrastructure managers and transport operators, on the basis of the safety recommendations.



D. Organization of Investigation

D1. Independence of investigation

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 transport operators.

D2. Bodies involved in investigation

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 transport operator** identifies the causes and circumstances of accident or incident, focusing on the adoption 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 the issue of preventative safety recommendation.
- **Czech Police** investigate accident or incident with the aim of defining responsibility for the committing of offences or criminal acts.

D3. Investigation performed by the National Investigation Body

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

- meeting of the legal requirements for procedures following occurrence of railway accident or incident by infrastructure manager and transport operator
- independent investigation of the causes and circumstances of accident or incident (serious accidents and selected accidents and incidents only)
- supervision of the correctness and completeness of the procedures followed by infrastructure manager or transport operator 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 transport operator, 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 supervises the procedures performed by infrastructure managers and transport operators 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 transport operator, The Rail Safety Inspection Office issues safety recommendation with the aim of preventing re-occurrence of the accident or incident. Safety recommendation is issued also if there are other findings relevant for the safety.

E. Annual Investigation Report

E1. Summary of investigations performed in 2007

In 2007, The Rail Safety Inspection Office investigated all the serious accidents that occurred and also accidents and incidents that, under slightly different conditions might have led to serious accidents. Investigations were initiated according to the national legislation corresponding to Art. 19(1) and 19(2) of Directive 2004/49/EC. Moreover, The Rail Safety Inspection Office investigated also 2 level crossing accidents that occurred on sidings.

Type of rail system (guided transport)		Number of accidents and incidents	
		2006	2007
Railways:	- main lines	2204	1356
	- regional lines	244	226
	- sidings	255	231
	- underground	48	26
Tram lines		2132	2042
Trolleybus lines		386	400
Cable-ways		5	3
Total		5274	4284

The statistic assessment of 2006 from the perspective of the occurrence of railway accidents and incidents is affected by two changes in the national legislation dealing with this matter. The changes in legislation took effect on 1 July 2006 and 1 August 2006 respectively. Both changes affected the definitions of accidents and incidents, investigation procedures and statistical classification. The statistic assessment of 2007 is partially affected too, due to inaccuracy in Czech national legislation.

E2. Accidents and incidents investigated in 2007

According to Directive 2004/49/EC, The Rail Safety Inspection Office initiated investigations of the following accidents and incidents which occurred in 2007:

Date	Category	Location	Description
18/01/07	accident	Between Dvur Kralove nad Labem and Bila Třemesna stations	Collision of fast train No. 996 with an obstacle (fallen tree) and consequent derailment
09/02/07	accident	Karanice station	Collision of fast train No. 957 with freight train No. 63440 and consequent derailment
17/02/07	accident	Praha-Vitkov station	Derailement of locomotive and 5 carriages

			of Eurocity train No. 107 on switch No. 2
20/02/07	accident	Between Mnisek pod Brdy and Cisovice stations	Derailment of freight train No. 85956
06/03/07	accident	Hranice na Morave station	Derailment of a wagon of freight train No. 67113 on the switch No. 5
19/03/07	accident	Between Dolni Berkovice and Vranany stations	Level crossing accident of fast train No. 784 and a passenger car left at a level crossing
07/05/07	accident	Between Jablunka and Valasske Mezirici stations	Level crossing accident of locomotive running solo and a burning lorry
20/06/07	serious accident	Cerny Kriz station	Collision of passenger train No. 18544 with a shunting rail car
21/06/07	incident	Chotoviny station	Fast train No. 641 entered track occupied by another fast train (No. 644)
04/07/07	accident	Veseli nad Luznici station	Level crossing accident of fast train No. 648 and a lorry
14/07/07	serious accident	Cercany station	Collision of fast train No. 633 with an empty passenger train No. 9122 on the track No. 1
01/09/07	serious accident	Between Bavorov and Vodnany stations	Collision of passenger train No. 18003 with passenger train No. 18032
01/09/07	accident	Between Tabor and Slapy stations	Derailment of last carriage of passenger train No. 28406
10/09/07	incident	Between Praha-Branik and Praha-Modrany stations	Passenger train No. 9009 entered track already occupied by another train (passenger train No. 19010)
20/09/07	accident	Between Krasikov and Rudoltice v Cechach stations	Collision of freight train No. 51422 with an obstacle within the clearance gauge
21/09/07	accident	Between Jaromerice nad Rokytinou and Moravske Budejovice stations	Level crossing accident of freight train No. 52241 and a car
02/10/07	accident	Between Varnsdorf and Seifhennersdorf stations	Level crossing accident of passenger train No. 83077 and a lorry
30/10/07	accident	Between Domasov nad Bystrici and Moravsky Beroun stations	Level crossing accident of fast train No. 827 and a truck
19/11/07	serious accident	Between Lestina u Svetle and Svetla nad	Derailment of last 3 wagons of freight train No. 64203

		Sazavou stations	
27/11/07	accident	Bystrice nad Olsí station	Derailment of locomotive of freight train No. 80203 on switch No. 15 with consequent fuel leak (2 m ³)
01/12/07	serious accident	Between Praha-Bechovice and Praha-Liben stations	Derailment of all 7 carriages of fast train No. 507
06/12/07	accident	Ostrava-Kuncice station	Derailment of carriage of passenger train No. 3425

According to Czech national legislation, The Rail Safety Inspection Office initiated investigation of the following incident which occurred in 2007:

Date	Category	Location	Description
12/01/07	accident	Siding UNEX a. s., Unicov	Level crossing accident of shunting wagons with a passenger car in km 0,179
25/01/07	accident	Siding Pivovar Radegast	Level crossing accident of shunting wagons with a lorry in km 0,683

F. Additional Details of Investigation

F1. Important Accidents and Incidents

In 2007, a series of 3 level crossing accidents occurred, which uncovered important safety issue related to level crossings. These accidents weren't prevented, despite there was at least one person, who knew that there is a road vehicle standing at the level crossing. Drivers, fire brigade and police called infrastructure manager, but they weren't able to identify obstructed level crossing. Moreover, infrastructure manager wasn't able to react effectively enough to stop train approaching the obstructed level crossing.

Therefore, The Rail Safety Inspection Office proposed to Ministry for Transportation to introduce mandatory identification of level crossings by the law. According to this proposal, each level crossing should be equipped with visible ID-table with unique level crossing ID-number and an emergency telephone number, in order to avoid misunderstandings when alerting emergency services or infrastructure manager in case of emergency. Unfortunately, Ministry for Transportation rejected this proposal for economic reason.

F2. Details of Important Accidents and Incidents

The series of level crossing accidents described in chapter F1 involved the following level crossing accidents:

Date	Category	Location	Description
19/03/07	accident	Between Dolni Berkovice and Vranany stations	Level crossing accident of fast train No. 784 and a passenger car left at a level crossing The car was discovered by police. Police alerted infrastructure manager, but he didn't stop approaching train due to misunderstood level crossing identification.
07/05/07	accident	Between Jablunka and Valasske Mezirici stations	Level crossing accident of locomotive running solo and a burning lorry Fire brigade reported burning lorry at a level crossing to infrastructure manager, but he didn't react properly and fast enough to stop approaching locomotive and to switch off contact wire.
30/10/07	accident	Between Domasov nad Bystřicí and Moravský Beroun stations	Level crossing accident of fast train No. 827 and a truck A truck got stuck at a level crossing, because the truck was too low to pass the

			rails. Its driver called police, but he wasn't able to identify the level crossing.
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F3. Research and Studies

In 2007, The Rail Safety Inspection Office did not carry out any research or study.

G. Safety Recommendations

G1. Safety Recommendations – Overview

Before 1st July 2006, The Rail Safety Inspection Office was authorized to order infrastructure managers and transport operators to take immediate measures to prevent accidents and incidents. However, the amended Act 266/1994 Coll., on Railways, as amended, cancelled this effective instrument. As of 1st July 2006, the law specified above, implemented safety recommendation into the national legislation of the Czech Republic.

The Rail Safety Inspection Office issues safety recommendation with the aim of preventing re-occurrence of the accident or incident. A recommendation is issued:

- if the accident or incident occurred without any violation of legislation or internal regulations of infrastructure manager and/or transport operator
- if there is an other finding relevant for the safety

According to Directive 2004/49/EC The Rail Safety Inspection Office so far has issued safety recommendations based on the following occurrences:

Date	Category	Location	Description
18/01/07	accident	Between Dvur Kralove nad Labem and Bila Třemesna stations	Collision of fast train No. 996 with an obstacle (fallen tree) and consequent derailment
20/02/07	accident	Between Mnisek pod Brdy and Cisovice stations	Derailment of freight train No. 85956
19/03/07	accident	Between Dolni Berkovice and Vranany stations	Level crossing accident of fast train No. 784 and a passenger car left at a level crossing
07/05/07	accident	Between Jablunka and Valasske Mezirici stations	Level crossing accident of locomotive running solo and a burning lorry
04/07/07	accident	Veseli nad Luznici station	Level crossing accident of fast train No. 648 and a lorry
14/07/07	serious accident	Cercany station	Collision of fast train No. 633 with an empty passenger train No. 9122 on the track No. 1
01/09/07	serious accident	Between Bavorov and Vodnany stations	Collision of passenger train No. 18003 with passenger train No. 18032
20/09/07	accident	Between Krasikov and Rudoltice v Cechach stations	Collision of freight train No. 51422 with an obstacle within the clearance gauge
21/09/07	accident	Between Jaromerice nad Rokytou and	Level crossing accident of freight train No. 52241 and a car

		Moravske Budejovice stations	
30/10/07	accident	Between Domasov nad Bystřici and Moravský Beroun stations	Level crossing accident of fast train No. 827 and a truck
27/11/07	accident	Bystrice nad Olší station	Derailment of locomotive of freight train Mn 80203 on switch No. 15 with consequent fuel leak (2 m ³)
01/12/07	serious accident	Between Praha-Běchovice and Praha-Libén stations	Derailment of all 7 carriages of fast train No. 507
06/12/07	accident	Ostrava-Kuncice station	Derailment of carriage of passenger train No. 3425

G2. Safety Recommendations based on accidents or incidents occurred in 2007

Date	Location	Status
18/01/07	Between Dvůr Králové nad Labem and Bělá Třemesná stations	Accepted
	<p>Addressed to infrastructure manager České dráhy a. s.:</p> <ol style="list-style-type: none"> <i>It is recommended to evaluate weather forecast continuously with respect to regional conditions.</i> <i>It is recommended to develop procedures for safe operation during storms, strong wind and similar weather conditions.</i> <i>It is recommended to create list of locations with the highest risk of dangerous weather conditions and to develop local procedures ensuring the safety of operations.</i> <i>In order to remove all dangerous trees along the railways, it is recommended to apply legal procedures based on § 10 Act No. 266/1994 Coll.</i> <i>It is not recommended to operate locomotives with reduced viewing angle and single – person occupation for leading trains during bad weather conditions.</i> <p>Addressed to the national safety authority - Drážní úřad:</p> <ol style="list-style-type: none"> <i>When issuing safety certificates for infrastructure managers, it is recommended to check, whether they have procedures for safe operation during bad weather conditions.</i> 	
20/02/07	Between Mnisek pod Brdy and Čisovice stations	Accepted
	<p>Addressed to infrastructure manager České dráhy a. s.:</p> <ol style="list-style-type: none"> <i>It is recommended to develop safety rules focusing on infrastructure maintenance performed by external supplier (outsourced maintenance)</i> <i>It is recommended to supervise external supplier's safety rules observance</i> 	
19/03/07	Between Dolní Bělkovice and Vraný stations	Acc./Rej.
	Addressed to infrastructure manager České dráhy a. s.:	

	<p>1. It is recommended to equip each level crossing with visible ID-table with unique level crossing ID-number and an emergency telephone number, in order to avoid misunderstandings when alerting emergency services or infrastructure manager in case of emergency.</p> <p>2. It is recommended to provide all railway undertakings and emergency services with list of all level crossings showing their ID-numbers and emergency telephone numbers.</p> <p>3. It is recommended to launch a media campaign informing the public about proper behaviour in case of emergency situation at a level crossing.</p> <p>4. It is recommended to develop infrastructure manager's internal procedure responding for an emergency information from the public.</p> <p>Addressed to the national safety authority - Drazni urad:</p> <p>5. It is recommended to apply the above recommendations to all infrastructure managers.</p> <p>The Rail Safety Inspection Office proposed to Ministry for Transport to introduce mandatory identification of level crossings by the law.</p>	
07/05/07	Between Jablunka and Valasske Mezirici stations	Rejected
	<p>Addressed to infrastructure manager Ceske drahy a. s.:</p> <p>1. It is recommended to equip each level crossing with visible ID-table with unique level crossing ID-number and an emergency telephone number, in order to avoid misunderstandings when alerting emergency services or infrastructure manager in case of emergency.</p> <p>2. It is recommended to modify radio communication system TRS in order to grant the highest priority to "overall stop" and "selective stop" commands and to grant whole-line validity to these commands transmitted by a station master.</p>	
04/07/07	Veseli nad Luznici station	Rejected
	<p>Addressed to infrastructure manager Ceske drahy, a. s., national safety authority – Drazni urad and owner of the railway - SZDC, s. o.:</p> <p>1. It is recommended to equip the level crossing with barriers or to replace it with graded crossing.</p>	
14/07/07	Cercany station	In progress
	<p>Addressed to infrastructure manager Ceske drahy a. s.:</p> <p>1. It is recommended to perform regular psychological and neurological examination of station and dispatch personnel aged 50 and more.</p> <p>2. It is recommended to perform psychological and neurological examination of a member of station or dispatch personnel whenever their doctor recommends to do so.</p> <p>Addressed to the national safety authority - Drazni urad:</p> <p>3. It is recommended to apply the above recommendations to all relevant railway infrastructure managers.</p>	
01/09/07	Between Bavorov and Vodnany stations	In progress
	<p>Addressed to infrastructure managers, railway undertakings and owners of railways:</p> <p>1. It is recommended to equip busy regional lines without interlocking with an technical interlocking system ensuring that trains can't enter occupied part of line.</p>	

20/09/07	Between Krasikov and Rudoltice v Cechach stations	In progress
	<p>Addressed to Ceske drahy, a. s. and CD Cargo, a. s. operators:</p> <p>1) <i>It is recommended to create procedure for loading and transporting switches secured by textile belts.</i></p> <p>2) <i>It is recommended to revise contemporary way of transporting of oversized goods from DT Vyhybkarna a strojirna, a. s., Prostejov company, in order to ensure the safety, before the procedure for loading and transporting switches secured by textile belts is created.</i></p>	
21/09/07	Between Jaromerice nad Rokytinou and Moravske Budejovice stations	In progress
	<p>Addressed to infrastructure manager Ceske drahy a. s.:</p> <p>1. <i>It is recommended to put internal rule CD S4/3 into accordance with norm CSN 736380</i></p> <p>2. <i>It is recommended to check visibility condition at all the level crossings, where visibility reduction has been applied by the internal rule CD S4/3, and to modify these level crossings according to the norm CSN 736380</i></p>	
30/10/07	Between Domasov nad Bystrici and Moravsky Beroun stations	Rej./In prog
	<p>Addressed to infrastructure manager Ceske drahy, a. s. and to owner of the railway - SZDC, s. o.:</p> <p>1. <i>It is recommended to equip each level crossing with visible ID-table with unique level crossing ID-number and an emergency telephone number, in order to avoid misunderstandings when alerting emergency services or infrastructure manager in case of emergency (see safety recommendations issued within accidents Vranany 19th March 2007 and Jablunka 7th May 2007).</i></p>	
27/11/07	Bystrice nad Olsi station	In progress
	<p>Addressed to infrastructure manager SZDC, s. o.:</p> <p>1. <i>It is recommended to create and regularly apply procedure for preventative checking of mechanisms of manually operated switches.</i></p> <p>2. <i>It is recommended to modify maintenance procedure for mechanisms of manually operated switches in order to avoid rough manipulation with the mechanisms.</i></p>	
01/12/07	Between Praha-Bechovice and Praha-Liben stations	In progress
	<p>Addressed to infrastructure manager SZDC, s. o.:</p> <p>1. <i>It is recommended to improve training scheme of personnel performing non-destructive testing of rails.</i></p> <p>2. <i>It is recommended to implement European technical norms into scheme of non-destructive testing of rails.</i></p> <p>3. <i>It is recommended to carefully evaluate results of non-destructive testing of rails, especially when combined defect is detected.</i></p> <p>4. <i>It is recommended to determine maximal life of rails according to frequency and character of their load.</i></p>	
06/12/07	Ostrava-Kuncice station	In progress
	<p>Addressed to railway undertaking Ceske drahy, a. s. and to the national safety authority:</p>	

1. It is recommended to create maintenance scheme for electric unit class 460 based on regular monitoring of real technical condition of the vehicle.

G3. Safety Recommendations - Summary

According to Czech national legislation, safety recommendations are addressed to infrastructure managers, transport operators and infrastructure owners. They all are obliged to take appropriate measures based on safety recommendations and to report the measures taken to the National Investigation Body.

So far, The Rail Safety Inspection Office recorded:

- safety recommendations accepted: 2.5
- safety recommendations rejected: 3
- safety recommendations in progress: 7.5