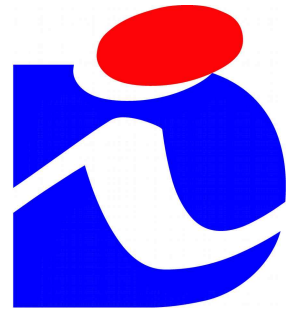




Czech Republic



The Rail Safety  
Inspection Office

# **NIB ANNUAL REPORT 2018**

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

The Rail Safety Inspection Office

Czech Republic

September 2019





## **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 2018, 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 2018
- the safety recommendations issued



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### **Summaries of investigations completed in 2018**



## **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.

Also following Directives amending Directive 2004/49/EC were implemented into the national legislation in set deadlines.

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 (IM) and railway undertakings (RU) 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 (NIB) 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,



- issues safety recommendations to the National Safety Authority (NSA), another administration body or another relevant body of different member state.

### **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. 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

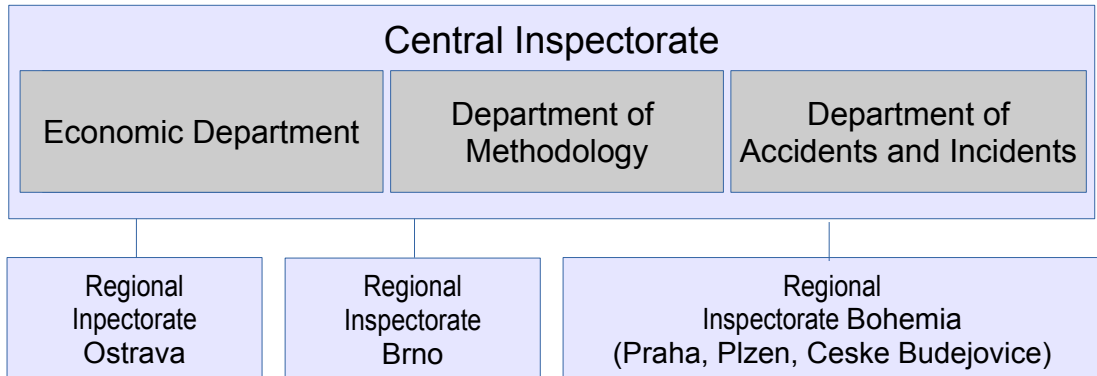
The Rail Safety Inspection Office has a total of **39 employees** in five cities of the Czech Republic (Ostrava, Brno, Praha, Plzen, Ceske Budejovice). It comprises of the Central Inspectorate and three regional inspectorates covering the area of the entire country. The Central Inspectorate consists of the Economic department, the Department of methodology and international cooperation and the Department of accidents and incidents and the central reporting work place.

**The Economic department** 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 methodology and international cooperation** creates and improves methodology for investigations, manages staff training and mediates communication with EU bodies.

**The Department of accidents and incidents and the central reporting work place** maintain accident investigation including the co-ordination of the regional inspectorates' activities and provide 24/7 reporting office for notification of accidents and incidents.

**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.



#### **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:

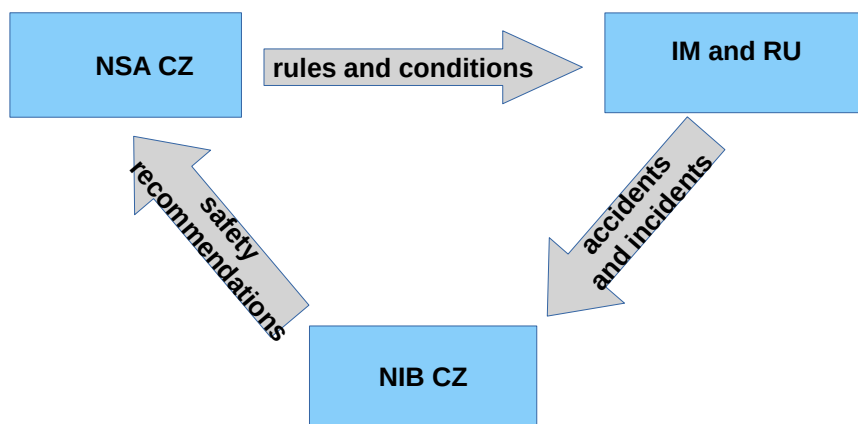
- railways (main lines, regional lines, sidings, underground)
- tram lines
- trolleybus lines
- cable-ways

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 and performing state supervision of railways, 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. The investigation shall in no case be concerned with apportioning blame or liability.
- **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 NIB**

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 (for example notification without any delay, securing of accident site, etc.)

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. If so, at the accident-site The Rail Safety Inspection Office will launch an independent investigation.

If The Rail Safety Inspection Office launches an investigation, it will notify The European Union Agency for Railways 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 2018, identifying key trends

Trends of completed investigations (last column of the table) are calculated as difference to previous year (2017).

Type of accidents investigated	Number of accidents	Number of victims		Damages in € (approx.)	Trends in relation to previous year
		Deaths	Ser.injury		
Collisions	8	0	0	4.138.580,-	+167 %
Derailments	5	0	0	672.724,-	-17 %
LC-accident	23	16	2	1.274.819,-	+229 %
Fire in RS	0	0	0	0	0 %
Acc. to person	1	1	0	0	0 %
Other	21	0	0	386.644,-	+250 %

#### 3.2 Investigations completed and commenced in 2018

##### Investigations completed in 2018

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Completed (date)
30. 1. 2017	Level-crossing accident: km 5,525 between Kralupy nad Vltavou predmesti – Velvary stations	i	8. 3. 2018
31. 3. 2017	Other: Unauthorised train movement other than SPAD in Jihlava mesto station	i	13. 4. 2018
31. 3. 2017	Trains collision with an obstacle: between Praha Smichov – Praha Radotin stations	i	11. 5. 2018
23. 5. 2017	Other: Derailment during shunting operation in “Odvalova kolej, Louky nad Olsi” siding	ii	23. 2. 2018
5. 6. 2017	Trains collision with an obstacle: in Prerov station	i	4. 7. 2018
10. 6. 2017	Other: Unauthorised movement of shunting operation other than SPAD in Cesky Brod station	i	14. 6. 2018
12. 6. 2017	Other: Unauthorised train movement other than SPAD in Cesky Brod station	i	7. 9. 2018
8. 7. 2017	Trains collision with an obstacle: between Hulin - Rikovice and Rikovice – Prerov stations	i	12. 7. 2018
17. 7. 2017	Level-crossing accident: km 22,694 between Kaznejov – Horni Briza stations	i	14. 6. 2018



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Legal basis</b>	<b>Completed</b> (date)
25. 7. 2017	Level-crossing accident: km 73,647 between Vlkos station – Vracov stop	i	2. 2. 2018
27. 7. 2017	Train derailment: in Novosedly station	i	11. 9. 2018
2. 8. 2017	Other: Unauthorised train movement other than SPAD in Kadan Prunerov station	i	3. 1. 2018
2. 8. 2017	Other: SPAD of shunting operation in Praha hlavní nadrazi station	i	30. 10. 2018
8. 8. 2017	Other: Derailment during shunting operation in Bohumin Vrbice station	i	2. 7. 2018
12. 8. 2017	Trains collision with an obstacle: between Mostek – Bila Tremesna stations with consequent derailment	i	26. 10. 2018
18. 8. 2017	Level-crossing accident: km 104,994 in Pržno station	i	2. 1. 2018
18. 8. 2017	Level-crossing accident: km 113,102 in Olbramkostel station	i	5. 3. 2018
25. 8. 2017	Level-crossing accident: km 28,870 between Sedlice - Blatna stations	i	20. 6. 2018
27. 8. 2017	Trains collision with an obstacle: between Volyne - Ckyne stations with consequent derailment	i	15. 1. 2018
31. 8. 2017	Train derailment: in Bludov station	i	22. 2. 2018
12. 9. 2017	Other: Overburning of the overhead contact line over the standing rolling stocks in Beroun station	i	21. 3. 2018
20. 9. 2017	Level-crossing accident: km 0,580 in Olomouc hlavní nadrazi station	i	21. 3. 2018
29. 9. 2017	Level-crossing accident: km 169,358 between Kryry - Vroutek stations	i	19. 2. 2018
11. 10. 2017	Other: SPAD in Lipník nad Bečvou station	i	12. 4. 2018
27. 10. 2017	Other: Tram trains collision in The City of Ostrava – between Trebovická – Zahradky stops	ii	28. 2. 2018
2. 11. 2017	Trains collision: between Lysá nad Labem – Kostomlaty nad Labem stations	i	25. 9. 2018
5. 11. 2017	Other: Tram trains collision in The City of Brno – junction Hybesova - Nadrazní	ii	26. 4. 2018
13. 11. 2017	Level-crossing accident: km 17,427 between Lipa nad Dřevicemi station – Zelechovice nad Dřevicemi stop	i	18. 4. 2018
22. 11. 2017	Level-crossing accident: km 47,208 between Obratán - Chynov stations	i	16. 4. 2018



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Legal basis</b>	<b>Completed</b> (date)
25. 11. 2017	Other: Uncontrolled movement of rolling stocks with consequent collision with shunting operation and derailment in "Vlečka Trineckých železaren a.s., Trinec" siding	ii	4. 7. 2018
1. 12. 2017	Train derailment: between Libčice nad Vltavou – Kralupy nad Vltavou stations	i	31. 12. 2018
4. 12. 2017	Trains collision: in Bylnice station	i	3. 9. 2018
8. 12. 2017	Other: Derailment during shunting operation in Plzeň hlavní nádraží station	i	16. 4. 2018
15. 12. 2017	Other: SPAD in Praha hlavní nádraží station with consequent collision with an obstacle	i	16. 10. 2018
23. 12. 2017	Accident to person caused by RS in motion: Towing of the passenger from Česká Třebová station to the section between Třebovice v Čechách – Rudoltice v Čechách stations	i	19. 9. 2018
4. 1. 2018	Level-crossing accident: km 94,654 between Lochovice - Zdice stations	i	9. 3. 2018
6. 1. 2018	Other: Accident to person caused by RS in motion with consequent tram train collision with an obstacle in The City of Ostrava – in Zahradky stop	ii	19. 7. 2018
11. 1. 2018	Train derailment: in Kralupy station	i	17. 9. 2018
14. 1. 2018	Level-crossing accident: km 105,959 between Zaječí - Sakvice stations	i	4. 6. 2018
18. 1. 2018	Other: SPAD in Beroun station	i	16. 11. 2018
24. 1. 2018	Level-crossing accident: km 104,952 between Brvany - Lenesice stations	i	10. 7. 2018
31. 1. 2018	Level-crossing accident: km 2,140 between Skovice – Caslav místní nádraží stations	i	22. 11. 2018
15. 2. 2018	Other: Unauthorised train movement other than SPAD in Praha Horní Počernice station	i	31. 10. 2018
16. 2. 2018	Level-crossing accident: km 263,911 in Ostrava Třebovice station	i	27. 6. 2018
28. 2. 2018	Other: SPAD of shunting operation in "Českomoravský cement, závod Praha Radotín" siding with consequent collision with an obstacle and derailment	ii	9. 10. 2018
3. 3. 2018	Train derailment: in Prerov station	i	5. 12. 2018
22. 3. 2018	Other: SPAD in Slapanice station	i	17. 9. 2018



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Legal basis</b>	<b>Completed</b> (date)
30. 3. 2018	Other: Derailment during shunting operation in Celakovice station	i	15. 10. 2018
6. 4. 2018	Level-crossing accident: km 1,103 between Rakovnik – Luzna u Rakovnika stations	i	1. 8. 2018
17. 4. 2018	Level-crossing accident: km 94,654 between Lochovice - Zdice stations	i	14. 6. 2018
23. 4. 2018	Level-crossing accident: km 87,595 between Lochovice - Jince stations	i	15. 10. 2018
8. 5. 2018	Level-crossing accident: km 59,750 between Cejrov – Chrast u Chrudimi stations	i	19. 10. 2018
22. 5. 2018	Level-crossing accident: km 4,217 between Velvary – Kralupy nad Vltavou predmesti stations	i	30. 11. 2018
23. 5. 2018	Level-crossing accident: km 6,882 in Nova Ves nad Luznici station	i	15. 10. 2018
27. 5. 2018	Other: SPAD of shunting operation in Praha Vrsovice seradovaci nadrazi station	i	18. 12. 2018
28. 5. 2018	Other: SPAD in Usti nad Labem hlavni nadrazi station	i	5. 12. 2018
4. 6. 2018	Level-crossing accident: km 10,504 between Stupno – Chrast u Plzne stations	i	28. 11. 2018
11. 7. 2018	Level-crossing accident: km 148,280 in Stankov station	i	28. 11. 2018

**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 2018

<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Legal basis</b>
4. 1. 2018	Level-crossing accident: km 94,654 between Lochovice - Zdice stations	i
6. 1. 2018	Other: Accident to person caused by RS in motion with consequent tram train collision with an obstacle in The City of Ostrava – in Zahradky stop	ii
6. 1. 2018	Trains collision: in Ceska Lipa station with consequent derailment	i
11. 1. 2018	Train derailment: in Kraliky station	i
14. 1. 2018	Level-crossing accident: km 105,959 between Zajeci - Sakvice stations	i
18. 1. 2018	Other: SPAD in Smrzovka station with consequent collision with an obstacle	i



18. 1. 2018	Other: SPAD in Beroun station	i
24. 1. 2018	Level-crossing accident: km 104,952 between Brvany - Lenesice stations	i
31. 1. 2018	Level-crossing accident: km 2,140 between Skovice – Caslav mistni nadrazi stations	i
3. 2. 2018	Other: Unauthorised movement of shunting operation other than SPAD in Melnik station with consequent collision with standing locomotive	i
15. 2. 2018	Other: Unauthorised train movement other than SPAD in Praha Horni Pocernice station	i
16. 2. 2018	Level-crossing accident: km 263,911 in Ostrava Trebovice station	i
28. 2. 2018	Other: SPAD of shunting operation in “Ceskomoravsky cement, zavod Praha Radotin” siding with consequent collision with an obstacle and derailment	ii
3. 3. 2018	Train derailment: in Prerov station	i
22. 3. 2018	Other: SPAD in Slapanice station	i
26. 3. 2018	Accident to person caused by RS in motion: in Rudoltice v Cechach station	i
30. 3. 2018	Other: Derailment during shunting operation in Celakovice station	i
6. 4. 2018	Level-crossing accident: km 1,103 between Rakovnik – Luzna u Rakovnika stations	i
17. 4. 2018	Level-crossing accident: km 94,654 between Lochovice - Zdice stations	i
23. 4. 2018	Level-crossing accident: km 87,595 between Lochovice - Jince stations	i
29. 4. 2018	Train derailment: in Lhotka u Melnika station	i
3. 5. 2018	Trains collision: between Kremze – Borsov nad Vltavou station with consequent derailment	i
8. 5. 2018	Level-crossing accident: km 59,750 between Cejrov – Chrast u Chrudimi stations	i
22. 5. 2018	Level-crossing accident: km 4,217 between Velvary – Kralupy nad Vltavou predmesti stations	i
23. 5. 2018	Other: Derailment – overturning during shunting operation between Mikulasovice dolni nadrazi - Pansky stations	i
23. 5. 2018	Level-crossing accident: km 6,882 in Nova Ves nad Luznici station	i
27. 5. 2018	Other: SPAD of shunting operation in Praha Vrsovice seradovaci nadrazi station	i
28. 5. 2018	Other: SPAD in Usti nad Labem hlavni nadrazi station	i
4. 6. 2018	Level-crossing accident: km 10,504 between Stupno – Chrast u Plzne stations	i
11. 6. 2018	Level-crossing accident: km 87,149 between Lochovice - Jince stations	i
29. 6. 2018	Other: Tram trains collision in The City of Praha –	ii



	between Stepanska – Karlovo namesti stops	
1. 7. 2018	Other: Unauthorised train movement other than SPAD in Veseli nad Moravou station	i
11. 7. 2018	Level-crossing accident: km 148,280 in Stankov station	i
16. 7. 2018	Level-crossing accident: km 108,734 between Kamenny Ujezd u Ceskych Budejovic - Vcelna stations	i
18. 7. 2018	Other: Unauthorised train movement other than SPAD in Svor station	i
20. 7. 2018	Trains collision: in Brno hlavni nadrazi station	i
20. 7. 2018	Trains collision: between Chrast u Plzne – Plzen hlavni nadrazi stations	i
26. 7. 2018	Other: The injury of the train driver by electric current in Brno hlavni nadrazi station	i
31. 7. 2018	Level-crossing accident: km 10,934 between Putim - Pisek stations	i
1. 8. 2018	Level-crossing accident: km 108,734 between Kamenny Ujezd u Ceskych Budejovic - Vcelna stations	i
15. 8. 2018	Train derailment: in Praha Vrsovice seradovaci nadrazi station	i
16. 8. 2018	Level-crossing accident: km 20,786 in Cizova station	i
17. 8. 2018	Train derailment: in Rymarov station	i
7. 9. 2018	Train derailment: in Kolin station	i
18. 9. 2018	Level-crossing accident: km 0,263 in Kralupy nad Vltavou predmesti station	i
21. 9. 2018	Other: SPAD in Stepanov station	i
21. 9. 2018	Other: Collision of rolling stocks during shunting operation in Ceske Budejovice station with consequent derailment	i
21. 9. 2018	Trains collision with an obstacle: between Holysov - Stankov stations	i
24. 9. 2018	Train derailment: between Chvateruby - Uzice stations	i
23. 10. 2018	Other: SPAD in Studenec station	i
28. 10. 2018	Level-crossing accident: km 10,693 between Brandys nad Labem - Neratovice stations	i
5. 11. 2018	Level-crossing accident: km 127,065 between Turnov - Sychrov stations	i
18. 11. 2018	Train derailment: in Studenka station	i
20. 11. 2018	Trains collision: between branch Chotebuz and Cesky Tesin station	i
21. 11. 2018	Other: Derailment during shunting operation in Strakonice station	i
22. 11. 2018	Other: Tram trains collision in The City of Praha – between Palackeho namesti – Jiraskovo namesti stops	ii
2. 12. 2018	Level-crossing accident: km 434,211 between Usti nad Labem Strekov - Svadov stations	i
11. 12. 2018	Trains collision: in Karlovy Vary dolni nadrazi station	i





13. 12. 2018	Accident to person caused by RS in motion: between Trebovice v Cechach – Ceska Trebova stations	i
14. 12. 2018	Train derailment: in Nymburk seradovaci nadrazi 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 2018

#### Safety Studies completed in 2018

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).

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 2018

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 2018 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 2014–2018)**

**Rail investigations completed in 2014–2018**

The table groups investigations by year of their completion.

Accidents investigated		2014	2015	2016	2017	2018	TOT
Serious accidents (Art 19, 1 + 2)	Train collision	0	0	1	0	0	1
	Train collision with an obstacle	0	0	0	0	1	1
	Train derailment	0	0	0	0	0	0
	Level-crossing accident	-	-	-	-	-	-
	Accident to person caused by RS in motion	-	-	-	-	-	-
	Fire in rolling stock	-	-	-	-	-	-
	Involving dangerous goods	0	0	-	-	-	0
Other accidents (Art 21.6)	Train collision	0	3	6	3	2	14
	Train collision with an obstacle	2	4	3	0	5	14
	Train derailment	6	4	5	5	5	25
	Level-crossing accident	6	8	5	7	23	49
	Accident to person caused by RS in motion	1	2	1	2	1	7
	Fire in rolling stock	0	0	0	0	0	0
	Involving dangerous goods	0	0	0	0	0	0
Incidents	2	1	0	3	9	15	
<b>TOTAL</b>	<b>17</b>	<b>22</b>	<b>21</b>	<b>20</b>	<b>46</b>	<b>126</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, all relevant parties (for example National Safety Authority, another administration body, etc.) are obliged to adopt their own preventative safety measures based on the safety recommendation issued.

#### Implementation of recommendations during 2014 – 2018

Recommendations issued		Recommendation implementation status					
		Implemented		In progress		Not to be implemented	
Year	[No.]	[No.]	[%]	[No.]	[%]	[No.]	[%]
2014	20	8	40	9	45	3	15
2015	25	7	28	16	64	2	8
2016	20	4	20	12	60	4	20
2017	16	2	12,5	5	31,25	9	56,25
2018	31	4	12,9	22	71	5	16,1
<b>TOTAL</b>	<b>112</b>	<b>25</b>	<b>22,3</b>	<b>64</b>	<b>57,2</b>	<b>23</b>	<b>20,5</b>

#### Accidents with safety recommendations issued in 2014 – 2018

Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
10. 9. 2012	Train derailment: among Blansko – Adamov – Brno Malomerice stations	partially implemented	24. 1. 2014
18. 11. 2012	Train derailment: in Praha Vrsovice station	implemented	30. 4. 2014
30. 1. 2013	Other: SPAD in Strancice station	partially implemented	3. 6. 2014
24. 2. 2013	Other: Broken wheel between Jeseník - Lipova Lázně stations	implemented	16. 1. 2014
12. 3. 2013	Train derailment: in Prelouč station	not implemented	5. 3. 2014
27. 3. 2013	Other: SPAD in Rožtoky u Prahy station	partially implemented	14. 3. 2014



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
20. 6. 2013	Train derailment: The city of Brno – tram stop Celní	implemented	9. 1. 2014
13. 7. 2013	Level-crossing accident: km 110,525 between Opava zapad - Skrochovice stations	not implemented	13. 1. 2014
21. 7. 2013	Train derailment: in Pardubice hlavní nadraží station	partially implemented	15. 1. 2014
7. 8. 2013	Level-crossing accident: km 7,527 between Varnsdorf - Rybníste stations	partially implemented	25. 6. 2014
31. 8. 2013	Other: SPAD in Postrelmov station	partially implemented	21. 2. 2014
12. 9. 2013	Level-crossing accident: km 148,648 between Jaromerice nad Rokytnou - Kojetice na Moravě stations	implemented	3. 2. 2014
2. 10. 2013	Other: Derailment during shunting operation in Prerov station	partially implemented	6. 5. 2014
3. 11. 2013	Other: Derailment during shunting operation in Brno Malomerice station	implemented	25. 8. 2014
10. 1. 2014	Accident to person caused by RS in motion: The city of Praha – tram stop Palmovka	implemented	6.10. 2014
4. 2. 2014	Trains collision with an obstacle: between Jindřichov ve Slezsku státní hranice – Jindřichov ve Slezsku stations	partially implemented	1. 9. 2014
7. 3. 2014	Train derailment: in Brno hlavní nadraží station	implemented	2. 9. 2014
10. 3. 2014	Other: Tram trains collision during shunting operation in The City of Ostrava – tram stop Nova hut jižní brána	implemented	20. 8. 2014
15. 3. 2014	Level-crossing accident: km 61,599 between Cervenka - Moravický stations	partially implemented	31. 10. 2014
24. 3. 2014	Level-crossing accident: km 16,388 between Rozsochatec - Chotěboř stations	not implemented	18. 11. 2014
11. 10. 2013	Accident to person caused by RS in motion: in Karlov pod Ještědem station	partially implemented	15. 1. 2015
11. 7. 2014	Level-crossing accident: km 6,006 between Brno Chřlice – Brno hlavní nadraží stations	implemented	4. 3. 2015
30. 8. 2014	Level-crossing accident: km 77,275 between Slatinany – Chrudim stations	implemented	29. 4. 2015
9. 9. 2014	Accident to person caused by RS in motion: The city of Ostrava – tram stop Horní	partially implemented	14. 5. 2015
1. 12. 2014	Train derailment: between Pácejov – Horázdovice předměstí stations	partially implemented	27. 5. 2015
8. 7. 2014	Trains collision: in Česká Třebová station with consequent derailment	partially implemented	28. 5. 2015
11. 11. 2014	Trains collision: between Petrovice u Karvíně – Odbočka Závada stations	partially implemented	1. 6. 2015



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
28. 3. 2014	Other: SPAD in Praha hlavní nadraží station	not implemented	19. 6. 2015
23. 4. 2014	Level-crossing accident: km 361,191 in Vsetaty station	implemented	19. 6. 2015
24. 3. 2015	Level-crossing accident: km 47,208 between Obratan – Chynov stations	not implemented	10. 8. 2015
21. 11. 2014	Train derailment: in Ostrava hlavní nadraží station	implemented	11. 8. 2015
13. 3. 2014	Trains collision: between Decin Prostedni Zleb – Decin hlavní nadraží stations	implemented	19. 8. 2015
28. 11. 2014	Train derailment: in Bohumin station	partially implemented	31. 8. 2015
26. 7. 2014	Level-crossing accident: km 80,206 between Jince - Bratkovice stations	partially implemented	7. 9. 2015
19. 2. 2015	Other: Unauthorised movement of shunting operation other than SPAD in Paskov siding with consequent derailment	implemented	16. 9. 2015
25. 5. 2015	Level-crossing accident: km 4,740 between Velke Pavlovice – Kobylí na Morave stations	in progress	25. 9. 2015
27. 7. 2014	Other: SPAD in Kolin station	partially implemented	30. 9. 2015
15. 12. 2014	Trains collision with an obstacle: in Prosenice station	partially implemented	4. 11. 2015
28. 1. 2015	Trains collision with an obstacle: between Ponikla – Hrabacov stations with consequent derailment	in progress	20.11. 2015
16. 11. 2014	Train collision with an obstacle: in Hrusovany u Brna station	partially implemented	30. 11. 2015
24. 6. 2015	Level-crossing accident: km 8,985 between Sudomerice nad Moravou – Straznice stations	implemented	1. 12. 2015
27. 2. 2015	Accident to person caused by RS in motion: in Cernotin stop	partially implemented	10. 12. 2015
22. 7. 2015	Level-crossing accident: km 245,044 in Studenka station	in progress	15. 12. 2015
19. 6. 2014	Other: Unauthorised train movement other than SPAD in Dolní Berkovice station	partially implemented	17. 12. 2015
29. 6. 2015	Train derailment: in Prosenice station	partially implemented	29. 12. 2015
17. 9. 2014	Trains collision: in Praha Vysehrad station with consequent derailment	partially implemented	13. 6. 2016
13. 11. 2014	Train derailment: in Pribyslav station	implemented	7. 7. 2016
30. 12. 2014	Trains collision: in Poricany station with consequent derailment	partially implemented	16. 5. 2016
11. 1. 2015	Trains collision with an obstacle: between Rozna – Nedvedice stations	partially implemented	8. 1. 2016



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
16. 2. 2015	Trains collision: in Bakov nad Jizerou station	partially implemented	30. 3. 2016
28. 3. 2015	Trains collision: between Velke Zernoseky – Litomerice dolni nadrazi stations with consequent derailment	implemented	11. 4. 2016
14. 7. 2015	Trains collision with an obstacle: in Praha Masarykovo nadrazi station with consequent derailment	partially implemented	29. 2. 2016
4. 8. 2015	Trains collision: in Horazdovice predmesti station with consequent derailment	implemented	22. 1. 2016
14. 8. 2015	Level-crossing accident: km 94,356 between Uhersky Ostroh – Ostrozska Nova Ves stations	in progress	7. 4. 2016
7. 9. 2015	Level-crossing accident: km 8,971 in Sluknov station	partially implemented	7. 6. 2016
9. 9. 2015	Accident to person caused by RS in motion: in Golcuv Jenikov station	implemented	29. 6. 2016
14. 9. 2015	Train derailment: between Vlkanec – Golcuv Jenikov stations	not implemented	7. 4. 2016
30. 10. 2015	Trains collision: in Rehlovice station	not implemented	1. 12. 2016
8. 11. 2015	Train derailment: in Drisy station	partially implemented	28. 11. 2016
4. 12. 2015	Level-crossing accident: km 52,066 between Zdarec u Skutce – Hlinsko v Cechach stations	not implemented	15. 7. 2016
11. 12. 2015	Level-crossing accident: km 21,580 in Frydek Mistek station	partially implemented	6. 6. 2016
21. 3. 2016	Level-crossing accident: km 264,230 between Golcuv Jenikov mesto – Golcuv Jenikov stations	partially implemented	29. 11. 2016
19. 4. 2016	Accident to person caused by RS in motion: in „DKV Suchdol nad Odrou“ siding	partially implemented	10. 10. 2016
26. 5. 2016	Train derailment: between Dobronin - Jihlava stations	not implemented	14. 12. 2016
10. 7. 2016	Trains collision: in Rotava station	partially implemented	26. 9. 2016
14. 9. 2014	Train derailment: between Chotovice – Prevysov stations	in progress	11. 7. 2017
13. 4. 2016	Other: SPAD in Rudoltice v Cechach station	not implemented	11. 7. 2017
27. 5. 2016	Train derailment: in Praha hlavní nadrazi station	in progress	29. 8. 2017
24. 7. 2016	Accident to person caused by RS in motion: between Olomouc – Stepanov stations	implemented	13. 1. 2017



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
30. 8. 2016	Train derailment: in Kolin station	not implemented	24. 4. 2017
30. 8. 2016	Trains collision: between Vcelnicka - Chvalkov stations	implemented	21. 4. 2017
13. 9. 2016	Level-crossing accident: km 4,982 between Straznice – Veseli nad Moravou stations	not implemented	14. 3. 2017
15. 12. 2016	Train derailment: in Havlickuv Brod station	not implemented	14. 8. 2017
20. 1. 2017	Level-crossing accident: km 117,860 in Vejprnice station	in progress	26. 5. 2017
24. 1. 2017	Train derailment: in Velky Senov station	not implemented	9. 6. 2017
30. 1. 2017	Level-crossing accident: km 18,809 between Rudoltice v Cechach-Krasikov stations	not implemented	29. 9. 2017
5. 4. 2017	Other: SPAD in Kralupy nad Vltavou station	not implemented	31. 7. 2017
12. 7. 2017	Level-crossing accident: km 56,202 in Klatovy station	not implemented	11. 10. 2017
20. 7. 2017	Level-crossing accident: km 35,293 in Bystrice pod Hostynem station	partially implemented	18. 12. 2017
27. 7. 2017	Level-crossing accident: km 161,719 in Starec station	not implemented	15. 11. 2017
30. 7. 2017	Level-crossing accident: km 25,744 between Hostomice pod Brdy - Lochovice stations	in progress	11. 10. 2017
30. 1. 2017	Level-crossing accident: km 5,525 between Kralupy nad Vltavou predmesti – Velvary stations	in progress	8. 3. 2018
31. 3. 2017	Other: Unauthorised train movement other than SPAD in Jihlava mesto station	not implemented	13. 4. 2018
31. 3. 2017	Trains collision with an obstacle: between Praha Smichov – Praha Radotin stations	partially implemented	11. 5. 2018
23. 5. 2017	Other: Derailment during shunting operation in “Odvalova kolej, Louky nad Olsi” siding	implemented	23. 2. 2018
5. 6. 2017	Trains collision with an obstacle: in Prerov station	in progress	4. 7. 2018
12. 6. 2017	Other: Unauthorised train movement other than SPAD in Cesky Brod station	in progress	7. 9. 2018
8. 7. 2017	Trains collision with an obstacle: between Hulin - Rikovice and Rikovice – Prerov stations	partially implemented	12. 7. 2018
25. 7. 2017	Level-crossing accident: km 73,647 between Vlkos station – Vracov stop	not implemented	2. 2. 2018
27. 7. 2017	Train derailment: in Novosedly station	not implemented	11. 9. 2018



<b>Date of occurrence</b>	<b>Title of the investigation (Occurrence type, location)</b>	<b>Status of implem.</b>	<b>Completed (date)</b>
8. 8. 2017	Other: Derailment during shunting operation in Bohumin Vrbice station	in progress	2. 7. 2018
12. 8. 2017	Trains collision with an obstacle: between Mostek – Bila Třemesná stations with consequent derailment	in progress	26. 10. 2018
18. 8. 2017	Level-crossing accident: km 104,994 in Pržno station	partially implemented	2. 1. 2018
18. 8. 2017	Level-crossing accident: km 113,102 in Olbramkostel station	implemented	5. 3. 2018
25. 8. 2017	Level-crossing accident: km 28,870 between Sedlice - Blatná stations	partially implemented	20. 6. 2018
31. 8. 2017	Train derailment: in Bludov station	in progress	22. 2. 2018
20. 9. 2017	Level-crossing accident: km 0,580 in Olomouc hlavní nadraží station	partially implemented	21. 3. 2018
29. 9. 2017	Level-crossing accident: km 169,358 between Kryry - Vroutek stations	partially implemented	19. 2. 2018
5. 11. 2017	Other: Tram trains collision in The City of Brno – junction Hybesova - Nadražní	implemented	26. 4. 2018
13. 11. 2017	Level-crossing accident: km 17,427 between Lipa nad Dřevicemi station – Zelechovice nad Dřevicemi stop	partially implemented	18. 4. 2018
22. 11. 2017	Level-crossing accident: km 47,208 between Obratán - Chynov stations	partially implemented	16. 4. 2018
4. 1. 2018	Level-crossing accident: km 94,654 between Lochovice - Zdice stations	partially implemented	9. 3. 2018
6. 1. 2018	Other: Accident to person caused by RS in motion with consequent tram train collision with an obstacle in The City of Ostrava – in Zahradky stop	implemented	19. 7. 2018
31. 1. 2018	Level-crossing accident: km 2,140 between Skovice – Časlav místní nadraží stations	partially implemented	22. 11. 2018
16. 2. 2018	Level-crossing accident: km 263,911 in Ostrava Třebovice station	in progress	27. 6. 2018
3. 3. 2018	Train derailment: in Prerov station	partially implemented	5. 12. 2018
17. 4. 2018	Level-crossing accident: km 94,654 between Lochovice - Zdice stations	partially implemented	14. 6. 2018
22. 5. 2018	Level-crossing accident: km 4,217 between Velvary – Kralupy nad Vltavou předměstí stations	not implemented	30. 11. 2018
23. 5. 2018	Level-crossing accident: km 6,882 in Nova Ves nad Lužnicemi station	in progress	15. 10. 2018
27. 5. 2018	Other: SPAD of shunting operation in Praha Vrsovice sřadovácí nadraží station	not implemented	18. 12. 2018
4. 6. 2018	Level-crossing accident: km 10,504 between Stupno – Chrást u Plzně stations	partially implemented	28. 11. 2018





<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
11. 7. 2018	Level-crossing accident: km 148,280 in Stankov station	partially implemented	28. 11. 2018

#### 4.2 Recommendations issued in 2018

<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
30. 1. 2017	Level-crossing accident: km 5,525 between Kralupy nad Vltavou predmesti – Velvary stations  <b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>• due to fact, that it happened a serious accidents with a cars at the level crossing No. P2106 in 2015 and 2017 and also due to fact, that the level crossing No. P2106 cross the road of second category with high traffic factor (216 920) and its equipped only with warning crosses, The Czech Rail Safety Inspection proposes to The Czech National Safety Authority, to insist on equipment of the level crossing system with warning lights and barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment, within negotiations with infrastructure manager about change equipment of this level crossing;</li><li>• it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers.</li></ul>
31. 3. 2017	Other: Unauthorised train movement other than SPAD in Jihlava mesto station  <b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>• it is recommended to adopt own measures, which will ensure:<ul style="list-style-type: none"><li>◦ the gradual replacement of the central controlled switches with the mechanical point machines by the system with the electromechanical point machines and with the electrical control of the switch position for the existing station interlocking equipment 2. category, especially at more demanding places;</li><li>◦ to pay increased attention, respectively emphasis, especially on selected ("problem") components such as the connecting elements and the connecting components of the insulating spacer of the wire transmissions during the</li></ul></li></ul>



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	<p>regular controls;</p> <ul style="list-style-type: none"> <li>○ to check the chemical and strength parameters of the components of the wire transmissions with the mechanical point machines which repeatedly failed to meet the requirements of the provisions of the SŽDC (ČD) T 121 regulation following the industry standard ON 42 6442 and to ensure using only those materials which are consistent with the relevant regulations for all IMs;</li> <li>○ to modify the set up system for employees of the IM to include to the training of the staff who switch the switches by wire transmissions also the physical training of the differences in the operation of the device in case of wire rupture.</li> </ul>
31. 3. 2017	Trains collision with an obstacle: between Praha Smichov – Praha Radotin stations
	<p><b>Addressed</b> to the Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>• it is recommended to adopt own measure to ensure: <ul style="list-style-type: none"> <li>○ addition of the safety management system of the IMs with the top overhead contact line so that the service life of each type of the insulators and the duty to replace these insulators cyclically according their service life will be regulated by the internal regulation of these IMs;</li> <li>○ that the relevant IMs will execute inspections and tests of the specified technical equipment (UTZ) outwith the interval of time after any accident or incident with an impact on serviceability of the UTZ according to the section 6 paragraph 6 of the Decree No. 100/1995 Coll.</li> </ul> </li> </ul> <p><b>Addressed</b> to the Ministry of Transport of the Czech Republic:</p> <ul style="list-style-type: none"> <li>• it is recommended to adopt own measure to ensure: <ul style="list-style-type: none"> <li>○ amendment of the relevant legislation, which will establish the particular time-delimited period for the inspections and tests of the UTZ outwith the interval of time which will be executed after any accident or incident with an impact on serviceability of the UTZ;</li> <li>○ amendment of the relevant legislation, which will establish the IM's duty to execute the revisions of the UTZ outwith the interval of time after any accident or incident with an impact on serviceability and safety of the UTZ, including establishment of the ultimate term of its execution, for all UTZ which are not subject to the inspections and tests.</li> </ul> </li> </ul>
23. 5. 2017	Other: Derailment during shunting operation in "Odvalova kolej, Louky nad Olsí" siding
	<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>• to adopt its own measures to review all of the uniform technological procedures of</li> </ul>



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	<p>the Advanced World Transport, a. s., which were issued to ensure safety of the shunting operation at the handling areas with unloading ramps, and also to ensure the performance of activities of the persons in the railway circuit so that these procedures will be in accordance with the approved project documentation of the construction.</p>
5. 6. 2017	Trains collision with an obstacle: in Prerov station
	<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>• it is recommended to adopt own measure for implementation of the previously issued recommendation No. 6-538/2009/DI-1, of the day 18<sup>th</sup> March 2010 and the following recommendations of the same or similar importance, and to speed up of creating conditions for a future installation and a startup of the system ERTMS (European Rail Traffic Management System) at the level of communication and at the level of operation and maintenance of the traffic control not only on the TEN-T (Trans-European Network – Transport) lines in the general interest at designing the reconstructions of the railway infrastructure, including modernization of the station interlocking equipment, the block signalling system and the level crossing system;</li> <li>• it is recommended to adopt own measure forcing installation of the technical device for emergency stop of the trains, which will be automatically activated when the rolling stock unauthorizedly moves behind the main signal device on railways where installation of the system ERTMS (European Rail Traffic Management System) is not planned.</li> </ul>
12. 6. 2017	Other: Unauthorised train movement other than SPAD in Cesky Brod station
	<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>• It is recommended to adopt its own measure to realize the listed below safety recommendations: <ul style="list-style-type: none"> <li>◦ to distinguish in color or to highlight on the monitor with the relief of a trackage of the similar (or future) interlocking equipment a fact or element which is not under the control of the interlocking equipment in accordance with the information on the risk side in a situation when the entering of the confirmation sequence will not be fulfilled by the operator input, the requirement will not be accepted by the interlocking equipment and the intended train route will not be set according to the operator's input into the input computer of the station interlocking equipment type "ESA";</li> <li>◦ to always adopt technical and administrative measures that will minimize obligation for operation the interlocking equipment to conduct a ride to calling-on signal when processing an Order on possession for a multiple-day track possession depending on the possibilities of the interlocking equipment.</li> </ul> </li> </ul>
8. 7. 2017	Trains collision with an obstacle: between Hulin - Rikovice and Rikovice



Date of occurrence	Title of the investigation, Safety recommendation
	– Prerov stations
<p><b>Addressed to The Czech National Safety Authority (NSA):</b></p> <ul style="list-style-type: none"> <li>• It is recommended to take own measure aimed to all holders of rolling stocks Faccs type, which ensure that:           <ul style="list-style-type: none"> <li>◦ extraordinary checks of the levers fuses of the segmental dump flaps state of the rolling stocks Faccs<sup>295.2</sup> a Faccs<sup>407.0</sup> type (producers Vagónka Studénka, national company and Vagónka Poprad, national company) and related rolling stocks, which used the same system of the levers fuses of the segmental dump flaps at the latest to 30<sup>th</sup> June 2019, when will be compare their actual state with production documentation and according to the findings will be put into functional state identical with the production documentation;</li> <li>◦ immediately incorporate check and assessment of function and state of the levers fuses of the segmental dump flaps to compare their real state with production documentation and this contend will be realize, if the holder of the rolling stocks doesn't act upon production documentation;</li> <li>◦ for all empty rolling stocks Faccs type in operation, will be determine sufficiently effective measures to prevent falling out levers fuses of the segmental dump flaps and their self-opening.</li> </ul> </li> <li>• to share of above safety recommendations to all holders of rolling stocks Faccs type (producers Vagónka Studénka, national company and Vagónka Poprad, national company) outside of the Czech Republic through the Site of the National Safety Authorities of European Railway Agency.</li> </ul>	
25. 7. 2017	Level-crossing accident: km 73,647 between Vlkos station – Vracov stop
<p><b>Addressed to The Czech National Safety Authority (NSA):</b></p> <ul style="list-style-type: none"> <li>• it is recommended to take own measure for implementation of previously issued the safety recommendations, which have been issued due to increase safety at level crossings and prevention of similar accidents;</li> <li>• as a follow-up to already issued safety recommendations it is recommended to change level crossing system of the level crossing No. P7939 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.</li> </ul>	
27. 7. 2017	Train derailment: in Novosedly station
<p><b>Addressed to The Czech National Safety Authority (NSA):</b></p> <ul style="list-style-type: none"> <li>• It is recommended to adopt own measures to ensure that the measurements of the total superelevation on railways executing by the measuring means and thus the resulting outputs will be undistorted and always ambiguous so that it will be possible to ensure that the value of superelevation will be properly qualified and the</li> </ul>	



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	<p>desirable standard of maintenance will be observed or the possible measures in relation to the prevention of accidents or incidents will be adopted on the basis of outputs from the measurement and their evaluation;</p> <ul style="list-style-type: none"><li>It is recommended to adopt own measures to ensure a demonstrable training of staff working with the outputs of the track geometry trolley Krab and to ensure that the relevant IMs will clearly define the procedures for evaluation of the outputs from this measurement and the working procedures for all employees affected by the problematics, by mid-2019 at the latest.</li></ul>
8. 8. 2017	Other: Derailment during shunting operation in Bohumin Vrbice station
	<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>it is recommended to adopt own measure forcing determination of the maintenance works after which it is necessary to carry out the quality adjustment of the direction and height position of the track using the line of track machines or the automatic lining and levelling tamper and their incorporation into the technological procedures of IM (SŽDC, s. o.) to ensure the track stability, especially the rail stability in the switch and in the continuous welded rail.</li></ul> <p>It is also recommended to act (within its own jurisdiction) on other IMs of the railway tracks to ensure that these IMs will modify their own technological procedures according to the recommendation referred in the previous paragraph at the same time.</p> <ul style="list-style-type: none"><li>it is recommended to adopt own measure forcing the reassessment of procedures of the RUs for executing of controls of the rolling stocks before their train placement which means that the qualified persons will be able to check and find out the wrongly loaded or secured cargo inside the transport unit – on the loading area of the rolling stock using buildings, technical equipment or tools designed for that purpose. So than the RU could consequently use the procedures in the „UIC-Loading Guidelines” and refuse to assume a dispatch, if the „UIC-Loading Guidelines“ is not obey.</li></ul>
12. 8. 2017	Trains collision with an obstacle: between Mostek – Bila Třemesna stations with consequent derailment
	<p><b>Addressed</b> to the Ministry of Transport of the Czech Republic in cooperation with other ministries and the Czech National Safety Authority (the NSA):</p> <ul style="list-style-type: none"><li>it is recommended to initiate the amendment of the provision of the act no. 266/1994 Coll., On rail systems as amended, of the act no. 114/1992 Coll., on the Conservation of Nature and Landscape as amended, and of the act no. 289/1995 Coll., on Forests and Amendments to some Acts (the Forest Act) as amended so that:<ul style="list-style-type: none"><li>the landlords and the administrators of the land in the railway protective area will have a legal duty to keep the trees and bushes in such condition and height</li></ul></li></ul>



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	that they do not endanger the rail system operation and its components and do not limit the safety and flow of the rail transport operation on the track and this duty will be legally enforceable, for example by the penalty for default the duty.
18. 8. 2017	Level-crossing accident: km 104,994 in Pržno station
	<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>• based on the fact that most collisions with worst consequences happen at level crossings equipped only with warning lights without barriers and according to the previously issued recommendations – ref. no.: 877/2012/DI, dated 14. 11. 2012, and the following similar or same ones, it is recommended to increase safety at the level crossings equipped with warning lights, so that only the level crossing system with warning lights and barriers will be designed and installed during the reconstruction and/or the modernization of the railway tracks and of the level crossings (not only at the railway tracks included to the European railway system);</li><li>• as a follow-up to already issued safety recommendations it is recommended to change level crossing system of level crossing No. P7385 to level crossing system equipped with barriers.</li></ul>
18. 8. 2017	Level-crossing accident: km 113,102 in Olbramkostel station
	<b>Addressed</b> to the Department of Transport of the Municipal Authority of Znojmo: <ul style="list-style-type: none"><li>• as the highway administration authority for local highways and tertiary roads which are within the cadastral area of the community Milíčovice to negotiate with the owner of the land no. 668/1 about the safety risk which develops when driving from his tertiary road toward to the level crossing.</li></ul>
25. 8. 2017	Level-crossing accident: km 28,870 between Sedlice - Blatná stations
	<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>• it is recommended to take own measure for implementation of previously issued the safety recommendations, intended for increase the level of safety, focusing on ensuring sufficient visibility conditions for road vehicles at level crossings;</li><li>• it is recommended to take own measure, which ensure safe operation of rail transport and road traffic at the level crossing No. P1361.</li></ul>
31. 8. 2017	Train derailment: in Bludov station
	<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>• when designing the reconstructions of the railway infrastructure, including modernization of the station interlocking equipment, the block signalling system and the level crossing system to speed up of creating conditions for a future instalation and a startup of the system ERTMS (European Rail Traffic Management System) at the level of communication and at the level of operation and maintance of the traffic control</li></ul>



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	not only on the TEN-T (Trans-European Network – Transport) lines; <ul style="list-style-type: none"><li>it is recommended to adopt own measure forcing instalation of the technical device for emergency stop of the trains, which will be automatically activated when the rolling stock unauthorizedly moves behind the main signal device on railways where instalation of the system ERTMS (European Rail Traffic Management System) is not planned.</li></ul>
20. 9. 2017	Level-crossing accident: km 0,580 in Olomouc hlavni nadrazi station
	<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;</li><li>change the level crossing system of the level crossing No. P7519 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.</li></ul>
29. 9. 2017	Level-crossing accident: km 169,358 between Kryry - Vroutek stations
	<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;</li><li>change the level crossing system of the level crossing No. P1703 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.</li></ul>
5. 11. 2017	Other: Tram trains collision in The City of Brno – junction Hybesova - Nadrazni
	<b>Addressed</b> to the Municipal Authority of Brno: <ul style="list-style-type: none"><li>it is recommended to take own measure forcing to replace the mechanical switch No. 709 for an electrically adjustable switch, or add the switch No. 709 with indication of point blades position.</li></ul>
13. 11. 2017	Level-crossing accident: km 17,427 between Lipa nad Drevici station – Zelechovice nad Drevici stop
	<b>Addressed</b> to The Czech National Safety Authority (NSA):



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	<ul style="list-style-type: none"><li>• it is recommended to adopt own measure for implementation of previously issued safety recommendations, which were issued to increase safety at the level crossings and to prevent similar accidents;</li><li>• it is recommended to adopt own measure that the level crossings will be replaced with the interchanges or completely cancelled as much as possible during the reconstruction and the upgrading process of the railway lines, while ensuring an adequate alternative routes for other road users;</li><li>• to enforce the cancellation of the level crossing No. P8251 and its replacement with the crossing for pedestrians at a suitable place while ensuring an adequate alternative routes for other road users;</li><li>• to ensure that the traffic signs of the level crossing No. P8251 will be highlighted by a retroreflective yellow-green fluorescence base to emphasize their importance, which will significantly eliminate the possibility of their oversight while driving over the level crossing.</li></ul> <p><b>Addressed</b> to the Municipal Authority of Zlín:</p> <ul style="list-style-type: none"><li>• to ensure that the traffic signs of the level crossing No. P8251 will be highlighted by a retroreflective yellow-green fluorescence base to emphasize their importance, which will significantly eliminate the possibility of their oversight while driving over the level crossing.</li></ul>
22. 11. 2017	Level-crossing accident: km 47,208 between Obratan - Chynov stations
	<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>• it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;</li><li>• it is recommended to take own measure for change the level crossing system of the level crossing No. P6382 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.</li></ul>
4. 1. 2018	Level-crossing accident: km 94,654 between Lochovice - Zdice stations
	<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>• it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;</li><li>• due to repetition of a similar accidents with tragic consequences at the level crossing No. P558 which is equipped with warning lights, to take own measure for change the level crossing system of the level crossing No. P558 to a level crossing</li></ul>





<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	<p>system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.</p>
<p>6. 1. 2018</p>	<p>Other: Accident to person caused by RS in motion with consequent tram train collision with an obstacle in The City of Ostrava – in Zahradky stop</p>
<p><b>Addressed</b> to the Municipal Authority of Ostrava:</p> <ul style="list-style-type: none"> <li>it is recommended to adopt own measure forcing specification of the work organization and work practices so that before work starts a person responsible for identifying a well-trained person who, if necessary, will give the signals to railroad drivers or the signs to other road users, and who will be responsible for the correct location of the portable lights and for security (cover) of the working place, will do so.</li> </ul>	
<p>31. 1. 2018</p>	<p>Level-crossing accident: km 2,140 between Skovice – Caslav mistni nadrazi stations</p>
<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>due to the fact that serious train collisions with road vehicles occurred at the level crossing No. P3737 in 2011, 2017 and 2018, as well as the fact that the level crossing No. P3737 crosses a 1<sup>st</sup> class road with a traffic moment 364 320 and it is secured only with the warning crosses, the RSIO recommends to the Czech National Safety Authority to ensure increase of the security level of the level crossing and to insist on the addition of the level crossing safety equipment with barriers at this frequented level crossing when negotiating with the IM about a change, which is able to reduce probability of the driver's entrance at the level crossing when he does not respond to the light and acoustic warnings;</li> <li>it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only the level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of the railway tracks.</li> </ul> <p><b>Addressed</b> to the Regional Authority of the Central Bohemia Region as the Road Administration Office in cases of the I. class road:</p> <ul style="list-style-type: none"> <li>to adopt own measure to ensure that the road marking V18 "Optical Psychological Brake", which guides the driver to reduce speed, will be added onto the road No. I/17 in the direction from Čáslav in front of the level crossing No. P3737, which is currently secured only with the warning crosses;</li> <li>to ensure that the traffic signs A 31a "Signboard (240 m)", A 30 "Level crossing without barriers", A 31b "Signboard (160 m)" and A 31c "Signboard (80 m)" which are placed before the level crossing P3737 on the road No. I/17 in both directions, will be retrofitted with yellow reflective coloring to highlight the designated traffic signs.</li> </ul>	



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
16. 2. 2018	Level-crossing accident: km 263,911 in Ostrava Trebovice station
<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>• it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;</li><li>• change the level crossing system of the level crossing No. P7724 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.</li></ul>	
3. 3. 2018	Train derailment: in Prerov station
<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>• to adopt own measure aimed not only to the IM (Správa železniční dopravní cesty, s. o.), but also to the other IMs in the Czech Republic which ensure that these IMs (of the national or regional railways) will unambiguously determine things mentioned bellow in the content of their technological procedures which are part of their safety management system of the railway operating in the case of occurrence of a rail break or a lateral crack of the head of the stock rail of the 1<sup>st</sup> or 2<sup>nd</sup> generation switches which are laid on the wooden sleepers, not only at the place of rail bearing-plates with the slide baseplates:<ul style="list-style-type: none"><li>◦ whether it is possible to temporarily repair these rail breaks or lateral cracks by coupling or other modification to prevent their further development, until the defect will be finally repaired;</li><li>◦ a specific repair procedure whether it is possible to make this preliminary repair.</li></ul></li></ul>	
17. 4. 2018	Level-crossing accident: km 94,654 between Lochovice - Zdice stations
<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>• it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only level crossing system with warning lights and barriers will be designed, installed and approved at the level crossings at time of reconstruction and modernization of railway tracks and level crossings;</li><li>• due to repetition of similar accidents with tragic consequences at the level crossing No. P558 which is equipped with warning lights (there were 3 similar accidents with the death of car drivers from 30<sup>th</sup> July 2017 to 17<sup>th</sup> April 2018) it is recommended to adopt own measure to change the level crossing system of the level crossing No. P558 which should be added with barriers as an optical barrier which is able to reduce the probability of a driver's entrance at the level crossing when the driver</li></ul>	



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
does not respond to the light and acoustic warning of the crossing system.	
22. 5. 2018	Level-crossing accident: km 4,217 between Velvary – Kralupy nad Vltavou predmesti stations
<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only the level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of the railway tracks;</li><li>change of the level crossing system of the level crossing No. P2104 to a level crossing system equipped with barriers, which from the point of view as an optical barrier will reduce probability of the driver's entrance at the level crossing when a driver does not respond to the light and acoustic warning of the level crossing safety equipment and to adopt measure, which ensure that the traffic sign A 32a „Warning cross for monorail level crossing” in both directions, will be retrofitted with yellow reflective coloring to highlight.</li></ul> <b>Addressed</b> to the Municipal Authority of Kralupy nad Vltavou as the Road Administration Office in the field of roads II. class: <ul style="list-style-type: none"><li>to ensure that the traffic signs A 31a "Signboard (240 m)", A 30 "Level crossing without barriers", A 31b "Signboard (160 m)" and A 31c "Signboard (80 m)" which are placed before the level crossing P2104 in both directions, will be retrofitted with yellow reflective coloring to highlight the designated traffic signs.</li></ul>	
23. 5. 2018	Level-crossing accident: km 6,882 in Nova Ves nad Luznici station
<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;</li><li>change the level crossing system of the level crossing No. P5588 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.</li></ul>	
27. 5. 2018	Other: SPAD of shunting operation in Praha Vrsovice seradovaci nadrazi station
<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>to adopt own measure which ensure:<ul style="list-style-type: none"><li>the compliance with the rules for radio communication between the IM's and RU's staff when organizing and carrying out the shunting operations (especially in nodal stations) during their control activities;</li></ul></li></ul>	



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	<ul style="list-style-type: none"> <li>◦ the reassessment of the control system to ensure the compliance with the rules for radio communication by the IM of the siding and the IM of the national-wide railway, who cooperate on shunting operations at the railway station Praha-Vršovice classification yard, a signalbox Departure, when organizing and carrying out the shunting operations between the „DKV Praha PJ Vršovice“ siding and the national-wide railway.</li> <li>• to adopt own measure which ensure modification of the relevant technological procedures of the IM of the „DKV Praha PJ Vršovice“ siding so that:               <ul style="list-style-type: none"> <li>◦ these will contain the rules for transference of the authorization to perform the shunting operation leader function in cases when a person, who is permanently authorized to perform this function by an internal regulation, does not obey his function regardless of the reason;</li> <li>◦ the situation when the employee, who does normally not participate on actions at the circuit of the siding which follows up the nation-wide railway, is authorized by the IM of the siding to negotiate and accept the permission and consent to shunting operation between the siding and the nation-wide railway which is represented by the circuit of the railway station Praha-Vršovice classification yard, the signalbox Departure, will be removed.</li> </ul> </li> </ul>
4. 6. 2018	Level-crossing accident: km 10,504 between Stupno – Chrast u Plzne stations
	<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>• it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of railway tracks and the level crossings;</li> <li>• change of the level crossing system of the level crossing No. P448 to a level crossing system equipped with barriers, which from the point of view as an optical barrier will reduce probability of the driver's entrance at the level crossing when a driver does not respond to the light and acoustic warning of the level crossing safety equipment.</li> </ul>
11. 7. 2018	Level-crossing accident: km 148,280 in Stankov station
	<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>• it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of railway tracks and the level crossings;</li> <li>• change of the level crossing system of the level crossing No. P619 to a level crossing system equipped with barriers, which from the point of view as an optical barrier will reduce probability of the driver's entrance at the level crossing when a driver does not respond to the light and acoustic warning of the level crossing safety equipment.</li> </ul>

## **ACCIDENT SUMMARY**

- Grade: accident.
- Date and time: 30<sup>th</sup> January 2017, 6:25 (5:25 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the regional passenger train No. 20305 with the car at the level crossing.
- Type of train: the regional passenger train No. 20305.
- Location: open line between Kralupy nad Vltavou předměstí station and Velvary operational control point, the level crossing No. P2106, km 5,525.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 20305);  
driver of the car (level crossing user).
- Consequences: 1 fatality (driver of the car);  
total damage CZK 295 000,-
- Direct cause:
- unauthorized entry of the car onto the level crossing at the time when the train No. 20305 was arriving.
- Contributory factor: none.
- Underlying causes:
- enter of the car on the level crossing at the time when the arriving train could be visible and audible;
  - behavior of the driver in front of the level crossing, the car driver wasn't careful enough.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- due to fact, that it happened a serious accidents with a cars at the level crossing No. P2106 in 2015 and 2017 and also due to fact, that the level crossing No. P2106 cross the road of second category with high traffic factor (216 920) and its equipped only with warning crosses, The Czech Rail Safety Inspection proposes to The Czech National Safety Authority, to insist on equipment of the level crossing system with warning lights and barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment, within negotiations with infrastructure manager about change equipment of this level crossing;
  - it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers.

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## **ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	31 <sup>th</sup> March 2017, 15:18 (13:18 GMT).
Occurrence type:	an unintended movement.
Description:	the unintended movement of the freight train No. 62145 on to the station track No. 13, which was occupied by the standing rolling stocks.
Type of train:	the freight train No. 62145.
Location:	Jihlava město station, the switch No. 34, km 91,255.
Parties:	SŽDC, s. o. (IM); ČD Cargo, a. s. (RU of the freight train No. 62145).
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none"><li>the failure to change the switch No. 34 to the correct end position during the train route preparation on the station track No. 5 due to rupture of the wire transmission of the mechanical point machine.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>the station interlocking equipment allowed to make the train route by normal service despite the fault on the switch.</li></ul>
Underlying causes:	<ul style="list-style-type: none"><li>the human factor – the St. 2 switch-woman's error. This error consisted of failure to observe the technological procedures of the IM, which determine duties and responsibilities of the staff who is responsible for the supervision of the switches which are central switched by the mechanical point machine, and for the control of their correct position when the switches change and for the consequent check of their required position;</li><li>the inadequate chemical and strength parameters of the tested parts of the wire transmission of the mechanical point machine, which did not fulfill the requirements of the provisions of the SŽDC (ČD) T 121 regulation following the industry standard ON 42 6442 for steel wires of signalling systems.</li></ul>
Root cause:	none.

### Recommendation:

Addressed to The Czech National Safety Authority (NSA):

- it is recommended to adopt own measures, which will ensure:
  - the gradual replacement of the central controlled switches with the mechanical point machines by the system with the electromechanical point machines and with the

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electrical control of the switch position for the existing station interlocking equipment 2. category, especially at more demanding places;

- to pay increased attention, respectively emphasis, especially on selected ("problem") components such as the connecting elements and the connecting components of the insulating spacer of the wire transmissions during the regular controls;
- to check the chemical and strength parameters of the components of the wire transmissions with the mechanical point machines which repeatedly failed to meet the requirements of the provisions of the SŽDC (ČD) T 121 regulation following the industry standard ON 42 6442 and to ensure using only those materials which are consistent with the relevant regulations for all lms;
- to modify the set up system for employees of the IM to include to the training of the staff who switch the switches by wire transmissions also the physical training of the differences in the operation of the device in case of wire rupture.





## **ACCIDENT SUMMARY**

Grade:	an accident.
Date and time:	31 <sup>st</sup> March 2017,17:37 (15:37 GMT).
Occurrence type:	a train collision with an obstacle.
Description:	the collision of the regional passenger train No. 9958 with the obstacle – the damaged overhead contact line.
Type of train:	the regional passenger train.
Location:	an open line between Praha-Smíchov and Praha-Radotín stations, the 2. track line, km 3,278.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the passenger train).
Consequences:	0 fatality, 0 injury; total damage CZK 259 160,-
Direct cause:	movement of the regional passenger train No. 9958 over the place where was the damaged overhead contact line.
Contributory factor:	the state of the insulator beyond its expected service life.
Underlying cause:	rupture of the supporting insulator in the support of an overhead contact line No. 44.
Root cause:	none.

### Recommendations:

Addressed to the Czech National Safety Authority (NSA):

- it is recommended to adopt own measure to ensure:
  - addition of the safety management system of the IMs with the top overhead contact line so that the service life of each type of the insulators and the duty to replace these insulators cyclically according their service life will be regulate by the internal regulation of these IMs;
  - that the relevant IMs will execute inspections and tests of the specified technical equipment (UTZ) outwith the interval of time after any accident or incident with an impact on serviceability of the UTZ according to the section 6 paragraph 6 of the Decree No. 100/1995 Coll.

Addressed to the Ministry of Transport of the Czech Republic:

- it is recommended to adopt own measure to ensure:
  - amendment of the relevant legislation, which will establish the particular time-delimited period for the inspections and tests of the UTZ outwith the interval of time which will be executed after any accident or incident with an impact on serviceability of the UTZ;

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- amendment of the relevant legislation, which will establish the IM's duty to execute the revisions of the UTZ outwith the interval of time after any accident or incident with an impact on serviceability and safety of the UTZ, including establishment of the ultimate term of its execution, for all UTZ which are not subject to the inspections and tests.



## **ACCIDENT SUMMARY**

- Grade: an incident.
- Date and time: 23<sup>rd</sup> May 2017, 2:29 (0:29 GMT).
- Occurrence type: a train derailment.
- Description: the derailment of 5 rolling stocks of the shunting operation due to change of the track geometric position.
- Type of train: a shunting operation.
- Location: the „Odvalová kolej 6a, 6b, Louky n. Olšf“ siding, the track No. 6b, km 0,472.
- Parties: Advanced World Transport, a. s. (IM and RU of the shunting operation); AWT Rekultivace, a. s. (operator of the unloading ramp).
- Consequences: 0 fatalities, 0 injury;  
total damage CZK 2 219 660,-
- Direct cause:
- change of the geometric position of the track No. 6b caused by overturning of the road panels of the unloading ramp wall into the pit after extraction of the material from the collection point.
- Contributory factor: none
- Underlying cause:
- reducing the level of the collection point of the unloading ramp at the track No. 6b by extraction of the material up to the bottom edge.
- Root cause:
- issuing the uniform technological procedures, which allow extraction of the material from the collection point at track No. 6b up to the bottom edge off the unloading ramp wall, differently from the approved project documentation of the construction.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- to adopt its own measures to review all of the uniform technological procedures of the Advanced World Transport, a. s., which were issued to ensure safety of the shunting operation at the handling areas with unloading ramps, and also to ensure the performance of activities of the persons in the railway circuit so that these procedures will be in accordance with the approved project documentation of the construction.



## **ACCIDENT SUMMARY**

- Grade: a serious accident.
- Date and time: 5<sup>th</sup> June 2017, 5:53 (3:53 GMT).
- Occurrence type: an unauthorized movement.
- Description: the unauthorized movement of the long distance passenger train No. 1342 behind the main route signal device Sc5 with the consequent collision with the concrete buffer stop at the end of the station track No. 5.
- Type of train: the long distance passenger train No. 1342.
- Location: the unauthorized movement: Přerov station, the station track No. 5, the main route signal device Sc5, km 183,376;  
the collision with the concrete buffer stop: the concrete buffer stop at the end of the station track No. 5, km 183,381.
- Parties: SŽDC, s. o. (IM);  
LEO Express, a. s. (RU of the long distance passenger train No. 1342).
- Consequences: 31 injuries (28 passengers of the train No. 1342 and 3 employees of the RU Leo Express, a. s.);  
total damage CZK 100 080 368,-
- Direct cause:
- the train driver's operational error (he did not respect signal "Stop" of the main route signal device Sc5 at Přerov station).
- Contributory factor:
- absence of technical equipment which prevents a train from passing a signal in case of danger.
- Underlying cause:
- failure of the train driver of the long distance passenger train No. 1342, when he did not act according to the facts on the track at the time when the train moved on the station line no. 5 at the Přerov station.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- it is recommended to adopt own measure for implementation of the previously issued recommendation No. 6-538/2009/DI-1, of the day 18<sup>th</sup> March 2010 and the following recommendations of the same or similar importance, and to speed up of creating conditions for a future installation and a startup of the system ERTMS (European Rail Traffic Management System) at the level of communication and at the level of operation and maintenance of the traffic control not only on the TEN-T (Trans-European Network – Transport) lines in the general interest at designing the reconstructions of the railway infrastructure, including modernization of the station interlocking equipment, the block signalling system and the level crossing system;

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- it is recommended to adopt own measure forcing installation of the technical device for emergency stop of the trains, which will be automatically activated when the rolling stock unauthorizably moves behind the main signal device on railways where installation of the system ERTMS (European Rail Traffic Management System) is not planned.



## **ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	10 <sup>th</sup> June 2017, 9:12:49 (7:12:49 GMT).
Occurrence type:	an uncontrolled ride.
Description:	the uncontrolled movement of the shunting operation from the excluded track to the operated station track and its entry into the train route of the regional passenger train No. 9320 at Český Brod station.
Type of train:	the shunting operation; the regional passenger train No. 9320.
Location:	Český Brod station, the switch No. 45, km 377,795.
Parties:	SŽDC, s. o. (IM and RU of the shunting operation); ČD, a. s. (RU of the regional passenger train No. 9320); MONZAS, s. r. o. (different legal person working on the switch No. 45); STRABAG Rail, a. s. (different legal person working on the switch No. 45);
Consequences:	0 fatalities, 0 injuries; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none"><li>• an unintended movement of the shunting operation through the switch No. 45 switched into the wrong direction.</li></ul>
Contributory factor:	none.
Underlying causes:	<ul style="list-style-type: none"><li>• unauthorized manual switching of the switch No. 45 into the wrong direction by the workers when performing their work and leaving the switch in this wrong position at the time of the movement of the shunting operation through the switch;</li><li>• failure to identify the incorrectly switched switch No. 45 at station Český Brod (switched into the wrong direction) in the route setting of the shunting operation by a driver of an overhead contact line maintenance vehicle;</li><li>• failure to report to the leader of the track occupancy works on the disconnection of the electromotive point machine of the switch No. 45 at station Český Brod;</li><li>• unauthorized delegation of negotiating the shunting operation to train drivers by the dispatcher for sequence operation and acceptance of this procedure by a track dispatcher;</li><li>• absence of technical measure ensuring direct lateral protection of the operated track after disconnection of the electromotive point machine of the switch No. 45 (an ambulatory point lock) and failure to ensure safety of the operation of a track in a substitute way by a professionally competent employee of the management of communication and security technology in case of danger resulting from the nature of the dismantling work on signalling equipment of the switch No. 45 at station Český Brod.</li></ul>

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Root cause: none.

Recommendations: not issued.





## **ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	12 <sup>th</sup> June 2017, 14:37 (12:37 GMT).
Occurrence type:	unauthorized movement.
Description:	unauthorized movement of the regional passenger train No. 8610 to the calling-on signal onto the open line track which was occupied by the long distance train No. 1359.
Type of train:	the regional passenger train No. 8610; the long distance passenger train No. 1359.
Location:	the railway track Česká Třebová – Praha-Libeň, Český Brod station, the departure signal device L5, km 377,134.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 8610); LEO Express, a. s. (RU of the long distance passenger train No. 1359).
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none"><li>• departure of the regional passenger train No. 8610 to the calling-on signal along the train route wrongly set by the dispatcher onto the open line track No. 1 where the long distance passenger train No. 1359 had already stood.</li></ul>
Contributory factors:	<ul style="list-style-type: none"><li>• train driver of the regional passenger train No. 8610 was not notified by an order with information on which open line track should the train leave from Český Brod;</li><li>• the emergency point lockings No. 40 and 42 which were set in the direct way after a previous ride of a train were not canceled;</li><li>• usage an unitary risk side on PC and a confirmation sequence “asdf” for calling-on signal and for all other warning reports without any following warnings about the seriousness of the situation.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• failure to observe the technological procedures of the IM during the setting the train route (the dispatcher set the train route for the regional passenger train No. 8610 from the station track No. 5 to the open line track No. 0 by an entrance-exit control system although he had been alerted to the incorrect position of the switches No. 40 and 42 and to the unestablished block condition “Uv-0T” by the PC, when the existing position of the switches No. 40 and 42 had been under the locking after the previous ride of the train and had not allowed the ride from the station track No. 5 to the open line track No. 0 so the dispatcher entered the confirmation sequence “asdf” thereby the calling-on signal at the departure signal device L5 was turned on and the ride of the train was allowed.</li></ul>
Root cause:	none.

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Recommendation:

Addressed to The Czech National Safety Authority (NSA):

It is recommended to adopt its own measure to realize the listed below safety recommendations:

- to distinguish in color or to highlight on the monitor with the relief of a trackage of the similar (or future) interlocking equipment a fact or element which is not under the control of the interlocking equipment in accordance with the information on the risk side in a situation when the entering of the confirmation sequence will not be fulfilled by the operator input, the requirement will not be accepted by the interlocking equipment and the intended train route will not be set according to the operator's input into the input computer of the station interlocking equipment type "ESA";
- to always adopt technical and administrative measures that will minimize obligation for operation the interlocking equipment to conduct a ride to calling-on signal when processing an Order on possession for a multiple-day track possession depending on the possibilities of the interlocking equipment.



## **ACCIDENT SUMMARY**

- Grade: accident.
- Date and time: 8<sup>th</sup> July 2017, 20:53 and 20:58 (18:53 and 18:58 GMT).
- Occurrence type: collision of the train with an obstacle.
- Description: collisions of the freight trains No. 69101 and No. 52297 with stones, which flew from the freight train No. 60202, which went in opposite way.
- Type of train: freight trains No. 60202, 69101 and 52297.
- Location: open line between Hulín and Říkovice stations, km 170,440 and open line between Říkovice and Přerov stations, km 177,0.
- Parties: SŽDC, s. o. (IM);  
ČD Cargo, a. s. (RU of the freight train No. 60202);  
IDS Cargo, a. s. (RU of the freight trains No. 69101 and 52297).
- Consequences: 1 minor injury;  
total damage CZK 430 921,-.
- Direct cause:
- fall out of stones from ajar segmental dump flaps while driving of rolling stock Faccs type after previous transportation of gravel.
- Contributory factor:
- uncleaning and pickup of uncleared rolling stock of Faccs type for next transport by the holder ČD Cargo from previous transporter.
- Underlying causes:
- self-opening segmental dump flaps while movement of the rolling stocks;
  - incompatible and endangering technical condition of the levers fuses of the segmental dump flaps, which did not correspond with production documentation.
- Root cause: none.
- Recommendations:
- Addressed to The Czech National Safety Authority (NSA):
- It is recommended to take own measure aimed to all holders of rolling stocks Faccs type, which ensure that:
    - extraordinary checks of the levers fuses of the segmental dump flaps state of the rolling stocks Faccs<sup>295.2</sup> a Faccs<sup>407.0</sup> type (producers Vagónka Studénka, national company and Vagónka Poprad, national company) and related rolling stocks, which used the same system of the levers fuses of the segmental dump flaps at the latest to 30<sup>th</sup> June 2019, when will be compare their actual state with production documentation and according to the findings will be put into functional state identical with the production documentation;
    - immediately incorporate check and assessment of function and state of the levers fuses of the segmental dump flaps to compare their real state with production documentation and this contend will be realize, if the holder of the rolling stocks doesn't act upon production documentation;
    - for all empty rolling stocks Faccs type in operation, will be determine sufficiently effective measures to prevent falling out levers fuses of the segmental dump flaps and their self-opening.

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- to share of above safety recommendations to all holders of rolling stocks Faccs type (producers Vagónka Studénka, national company and Vagónka Poprad, national company) outside of the Czech Republic through the Site of the National Safety Authorities of European Railway Agency.



**ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	17 <sup>th</sup> July 2017, 9:31 (7:31 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the long distance passenger train No. 1081 with the lorry at the level crossing No. P1679, which was switched off from activity.
Type of train:	the long distance passenger train No. 1081.
Location:	open line between Horní Bříza and Kaznějov stations, the level crossing No. P1679, km 22,694.
Parties:	SŽDC, s. o. (IM); GW Train Regio, a. s. (RU of the long distance passenger train No. 1081); driver of the lorry (level crossing user).
Consequences:	0 fatality, 0 injury; total damage CZK 475 760,-
Direct cause:	<ul style="list-style-type: none"><li>• failure to compliance of the prescribed way of driving with measures for train caution in front of the level crossing and in the area of the level crossing by train driver of the long distance passenger train No. 1081;</li><li>• failure to compliance of the prescribed way of the car driver and driving across the level crossing at the time when it was forbidden.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• failure to respect the signals, which was given to the train driver while driving the train;</li><li>• behavior of the car driver in front of the level crossing, when he did not convince, if it is possible safely cross over the level crossing.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	25 <sup>th</sup> July 2017, 10:42 (8:42 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the passenger train No. 1723 with a car at the level crossing.
Type of train:	passenger train No. 1723.
Location:	level crossing No. P7939 between Vikoš station and Vracov railway stop, line track No. 1, km 73,647.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the passenger train No. 1723); driver of the car (level crossing user).
Consequences:	1 fatality, 1 injury; total damage CZK 356 709,-
Direct cause:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.</li></ul>
Contributory factor:	none.
Underlying causes:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warnings and driving at the level crossing at the time when it was forbidden;</li><li>• driver's behavior in front of the level crossing, the car driver was not careful enough and did not make sure whether he could safely pass the level crossing.</li></ul>
Root cause:	none.
Recommendations:	
Addressed to The Czech National Safety Authority (NSA):	<ul style="list-style-type: none"><li>• it is recommended to take own measure for implementation of previously issued the safety recommendations, which have been issued due to increase safety at level crossings and prevention of similar accidents;</li><li>• as a follow-up to already issued safety recommendations it is recommended to change level crossing system of the level crossing No. P7939 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.</li></ul>

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## **ACCIDENT SUMMARY**

Grade: an incident.  
Date and time: 27<sup>th</sup> July 2017, 17:31 (15:31 GMT).  
Occurrence type: a train derailment.  
Description: the derailment of the freight train No. 68253 at Novosedly station.  
Type of train: the freight train No. 68253.  
Location: Novosedly station, the station track No. 3, km 117,280.  
Parties: SŽDC, s. o. (IM);  
ČD Cargo, a.s. (RU of the freight train No. 68253).  
Consequences: total damage CZK 159 827,-  
Direct cause:

- a ride of the train onto the track which was in an unsatisfactory technical condition when the safety limits of the track gauge were exceeded after the load of the track.

Contributory factor:

- the repeated crossing the maintenance limits and safety limits of the superelevation to significantly negative values at the derailment site and its surroundings where the outer (guide) rail string of the curve was lower than the low-side rail, resulting in the increase of the superelevation and the larger loading of the outer rail string by the centrifugal force acting during a ride of the fully loaded rail vehicles.

Underlying causes:

- an unsatisfactory technical condition of the wood sleepers (the inner rot) and a consequent deterioration in the holding of the fasteners, which did not ensure the maintenance of the track gauge within specified limits;
- repeated failure to identify the problem of crossing the superelevation parameters to the negative values at the derailment site and its surroundings due to the way of measuring and evaluating the superelevation parameters;
- failure to adopt the appropriate measures to ensure the safety operation of railway and railway transport – the defects in crossing the maintenance limits and safety limits of the superelevation were not found and eliminated during the control activities.

Root cause:

- failure to ensure the evaluation, respectively failure to determine the real values of the total superelevation when measuring by the track geometry trolley Krab, because the necessary track input data were not entered before measuring.

Recommendations:

Addressed to The Czech National Safety Authority (NSA):

- It is recommended to adopt own measures to ensure that the measurements of the total superelevation on railways executing by the measuring means and thus the resulting outputs will be undistorted and always ambiguous so that it will be possible to ensure that the value of superelevation will be properly qualified and the desirable standard of

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maintenance will be observed or the possible measures in relation to the prevention of accidents or incidents will be adopted on the basis of outputs from the measurement and their evaluation;

- It is recommended to adopt own measures to ensure a demonstrable training of staff working with the outputs of the track geometry trolley Krab and to ensure that the relevant IMs will clearly define the procedures for evaluation of the outputs from this measurement and the working procedures for all employees affected by the problematics, by mid-2019 at the latest.



**ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	2 <sup>nd</sup> August 2017, 5:00 (3:00 GMT).
Occurrence type:	the uncontrolled movement.
Description:	the uncontrolled movement of the inactive electric multiple unit.
Type of train:	the inactive electric multiple unit.
Location:	railway track Kadaň-Pruněrov – Cheb, Kadaň-Pruněrov station, km 137,355 – the place where the uncontrolled movement began; Kadaň předměstí railway stop, km 26,665 – the place where the electric multiple unit stopped.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the electric multiple unit).
Consequences:	0 fatality, 0 injury; total damage CZK 250,-
Direct cause:	<ul style="list-style-type: none"><li>• unsecuring of the electric multiple unit against unwanted movement by a train driver.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• failure to observe the technological procedures of the railway undertaking and the operating instructions for the electric multiple unit during preparation of a shunting operation by the train driver.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	2 <sup>nd</sup> August 2017, 16:28 (14:28 GMT).
Occurrence type:	unauthorized movement.
Description:	unauthorized movement of the shunting operation behind the signal device Se20 and its ride onto the train route for the regional passenger train No. 25921.
Type of train:	the regional passenger train No. 25921; the shunting operation.
Location:	Praha hlavní nádraží station, the signal device Se20, km 185,500.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 25921 and the shunting operation).
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none"><li>• train driver's of the shunting operation operational error (he did not respect the signal forbidding the shunting operation movement).</li></ul>
Contributory factor:	none.
Underlying causes:	<ul style="list-style-type: none"><li>• initiation of a shunting operation movement on an unclear request of the shunting operation leader without the consent of the IM by the train driver of the shunting operation when shunting without shunting crew;</li><li>• initiation of the shunting operation movement without permission to the shunting operation by the train driver of shunting operation when shunting without shunting crew.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: an incident.
- Date and time: 8<sup>th</sup> August 2017, 0:56 (7<sup>th</sup> August 2017 22:56 GMT).
- Occurrence type: a train derailment.
- Description: the derailment of two rolling stocks during movement of the shunting operation, which went to the signal device Lc98a as the freight train No. 49259.
- Type of train: the shunting operation/the freight train No. 49259.
- Location: Bohumín station, Bohumín-Vrbice district, the switch No. 606, km 273,159.
- Parties: SŽDC, s. o. (IM);  
ČD Cargo, a. s. (RU of the shunting operation and the freight train No. 49259);  
TSL Silesia, Sp. z o. o. (the sender/loader/transporter of commodities in the rolling stocks of the shunting operation and the freight train No. 49259).
- Consequences: 0 fatality, 0 injury;  
total damage CZK 267 584,-
- Direct cause:
- the derailment of the left wheel (a first axle – a front bogie) of the rolling stock CZ-ČDC 31 54 5958 849-9 Eas<sup>107.13</sup> due to unequally loaded cargo and defects in track geometry parameters in the switch No. 606 at Bohumín station (Bohumín-Vrbice district).
- Contributory factor: none.
- Underlying causes:
- the unequally loaded cargo over the entire loading area of the rolling stock CZ-ČDC 31 54 5958 849-9 Eas<sup>107.13</sup> which led to excess of the maximum permissible weight ratio between the left and right wheels of the axles;
  - the defects in superelevation (PK) and change in cross level – operation limit (ZK) in the switch No. 606 at Bohumín station (Bohumín-Vrbice district).
- Root causes:
- selected method of commodities loading – a powdered iron ore concentrate to the rolling stocks type Eas, which did not allow to check the uniform distribution during and after the loading;
  - poor quality of the track height position within maintenance works in the switch No. 606 at Bohumín station (Bohumín-Vrbice district), which resulted in increase of defects in track geometry parameters.

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Recommendation:

Addressed to The Czech National Safety Authority (NSA):

- it is recommended to adopt own measure forcing determination of the maintenance works after which it is necessary to carry out the quality adjustment of the direction and height position of the track using the line of track machines or the automatic lining and levelling tamper and their incorporation into the technological procedures of IM (SZDC, s. o.) to ensure the track stability, especially the rail stability in the switch and in the continuous welded rail.

It is also recommended to act (within its own jurisdiction) on other IMs of the railway tracks to ensure that these IMs will modify their own technological procedures according to the recommendation referred in the previous paragraph at the same time.

- it is recommended to adopt own measure forcing the reassessment of procedures of the RUs for executing of controls of the rolling stocks before their train placement which means that the qualified persons will be able to check and find out the wrongly loaded or secured cargo inside the transport unit – on the loading area of the rolling stock using buildings, technical equipment or tools designed for that purpose. So than the RU could consequently use the procedures in the „UIC-Loading Guidelines” and refuse to assume a dispatch, if the „UIC-Loading Guidelines“ is not obey.





## **ACCIDENT SUMMARY**

Grade: an incident.

Date and time: 12<sup>th</sup> August 2017, 5:55 (3:55 GMT).

Occurrence type: a collision with an obstacle (a fallen tree).

Description: the collision of the train with the obstacle – the fallen tree with the consequent derailment.

Type of train: the long distance passenger train No. 1261.

Location: an open line between Mostek and Bílá Třemešná station, km 64,176.

Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the long distance passenger train No. 1261).

Consequences: 0 fatality, 0 injury;  
total damage CZK 455 609,-

Direct cause:

- interference with the protection zone of the railway by the fallen tree which grew in the impact distance from the axis of the track line.

Contributory factors:

- the weather conditions – a strong wind;
- the inner rot of the tree;
- a failure to assess the condition of the trees growing in the railway premises and in the railway protective area in the impact distance from the axis of the track line as the sources of danger to the safe rail system operation and rail transport operation.

Underlying cause:

- a failure to remove the source of danger – the tree which grew in the railway protective area in the impact distance from the axis of the track line.

Root cause: none.

Recommendation:

Addressed to the Ministry of Transport of the Czech Republic in cooperation with other ministries and the Czech National Safety Authority (the NSA):

- it is recommended to initiate the amendment of the provision of the act no. 266/1994 Coll., On rail systems as amended, of the act no. 114/1992 Coll., on the Conservation of Nature and Landscape as amended, and of the act no. 289/1995 Coll., on Forests and Amendments to some Acts (the Forest Act) as amended so that:
  - the landlords and the administrators of the land in the railway protective area will have a legal duty to keep the trees and bushes in such condition and height that they do not endanger the rail system operation and its components and do not limit the safety

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and flow of the rail transport operation on the track and this duty will be legally enforceable, for example by the penalty for default the duty.



**ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	18 <sup>th</sup> August 2017, 10:42 (8:42 GMT).
Occurrence type:	level crossing accident.
Description:	collision of regional passenger train No. 3130 with a car at the level crossing.
Type of train:	regional passenger train No. 3130.
Location:	Pržno station, level crossing No. P7385, km 104,994.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 3130); driver of the car (level crossing user).
Consequences:	1 fatality; total damage CZK 342 600,-
Direct cause:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warnings and driving at the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warnings and driving at the level crossing at the time when it was forbidden;</li><li>• driver's behavior in front of the level crossing, the car driver was not careful enough.</li></ul>
Root cause:	none.
Recommendation:	
Addressed to The Czech National Safety Authority (NSA):	<ul style="list-style-type: none"><li>• based on the fact that most collisions with worst consequences happen at level crossings equipped only with warning lights without barriers and according to the previously issued recommendations – ref. no.: 877/2012/DI, dated 14. 11. 2012, and the following similar or same ones, it is recommended to increase safety at the level crossings equipped with warning lights, so that only the level crossing system with warning lights and barriers will be designed and installed during the reconstruction and/or the modernization of the railway tracks and of the level crossings (not only at the railway tracks included to the European railway system);</li></ul>

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- as a follow-up to already issued safety recommendations it is recommended to change level crossing system of level crossing No. P7385 to level crossing system equipped with barriers.



**ACCIDENT SUMMARY**

- Grade: an accident.
- Date and time: 18<sup>th</sup> August 2017, 14:33 (12:33 GMT).
- Occurrence type: a level crossing accident.
- Description: the collision of the passenger train No. 24811 with the car at the level crossing.
- Type of train: the passenger train No. 24811.
- Location: Olbramkostel station, the level crossing No. P3627, km 113,102.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the passenger train No. 24811);  
a car driver (a level crossing user).
- Consequences: 2 fatalities, 1 injury;  
total damage CZK 379 199,-
- Direct cause:
- standing of the car at the dangerous area of the level crossing at the time of movement of the train.
- Contributory factor: none.
- Underlying cause: none.
- Root cause: none.
- Recommendation:
- Addressed to the Department of Transport of the Municipal Authority of Znojmo:
- as the highway administration authority for local highways and tertiary roads which are within the cadastral area of the community Milíčovice to negotiate with the owner of the land no. 668/1 about the safety risk which develops when driving from his tertiary road toward to the level crossing.

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## **ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	25 <sup>th</sup> August 2017, 13:43 (11:43 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 17911 with the tractor with consequent derailment.
Type of train:	the regional passenger train No. 17911.
Location:	open line between Sedlice operating control point and Blatná station, the level crossing No. P1361, km 28,870.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 17911); driver of the tractor (level crossing user).
Consequences:	0 fatality, 0 injury; total damage CZK 1 824 000,-
Direct cause:	<ul style="list-style-type: none"><li>level crossing visibility conditions from the direction of the train ride from Sedlice operation control point and from the direction of road vehicles ride from village Nēmčice did not allow for the driver of the tractor to leave the dangerous zone of the level crossing in time.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>the train driver of the train No. 17911 did not give the prescribed repeating acoustic signal "Caution", while driving to the level crossing No. P1361 from the warning signal device "Whistle board". This signal was given by the train driver after seeing the tractor at the level crossing.</li></ul>
Underlying cause:	none.
Root cause:	<ul style="list-style-type: none"><li>internal regulation of the infrastructure manager No. SŽDC (ČSD) S 4/3, which allow reduce visibility conditions only to half the prescribed values.</li></ul>
Recommendation:	
Addressed to The Czech National Safety Authority (NSA):	<ul style="list-style-type: none"><li>it is recommended to take own measure for implementation of previously issued the safety recommendations, intended for increase the level of safety, focusing on ensuring sufficient visibility conditions for road vehicles at level crossings;</li><li>it is recommended to take own measure, which ensure safe operation of rail transport and road traffic at the level crossing No. P1361.</li></ul>

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**ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	27 <sup>th</sup> August 2017, 15:39 (13:39 GMT).
Occurrence type:	collision of the train with an obstacle with the consequent derailment.
Description:	collision of regional passenger train No. 18110 with an obstacle (alluvial soil) with consequent derailment of the train.
Type of train:	regional passenger train No. 18110.
Location:	open line between Volyně and Čkyně operational control points, in the area of level crossing No. 964, km 12,623.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 18110).
Consequences:	3 light injuries; total damage CZK 1 658 000,-
Direct cause:	<ul style="list-style-type: none"><li>• deposit of soil from an adjacent slope on the running track.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• strongly unfavorable climatic conditions – extreme flood rain of the catastrophic drift category.</li></ul>
Root cause:	none.
Recommendation:	not issued.



## **ACCIDENT SUMMARY**

- Grade: an incident.
- Date and time: 31<sup>st</sup> August 2017, 1:36 (30<sup>th</sup> August 2017, 23:36 GMT).
- Occurrence type: the unauthorized movement.
- Description: the unauthorized movement of the freight train No. 81300 behind the signal device S90P with the consequent derailment of the locomotive.
- Type of train: the freight train No. 81300.
- Location: Bludov station, the signal device S90P, the track line No. 90, a place of the unauthorized movement (km 0,106), a place of the derailment (km 0,093);
- Parties: SŽDC, s. o. (IM);  
ČD Cargo, a. s. (RU of the freight train No. 81300);
- Consequences: 0 fatality, 0 injury;  
total damage CZK 79 863,-
- Direct cause:
- operational error of the freight train No. 81300 driver (he did not respect the signal “Stop” of the route signal SP90 at Bludov station).
- Contributory factor:
- absence of technical equipment which prevents a train from passing a signal in case of danger.
- Underlying cause:
- the way of movement of the train chosen by the train driver, which did not allow to stop the train safely in front of the signal device prohibiting its movement.
- Root cause: none.
- Recommendations:
- Addressed to The Czech National Safety Authority (NSA):
- when designing the reconstructions of the railway infrastructure, including modernization of the station interlocking equipment, the block signalling system and the level crossing system to speed up of creating conditions for a future instalation and a startup of the system ERTMS (European Rail Traffic Management System) at the level of communication and at the level of operation and maintance of the traffic control not only on the TEN-T (Trans-European Network – Transport) lines;
  - it is recommended to adopt own measure forcing instalation of the technical device for emergency stop of the trains, which will be automatically activated when the rolling stock unauthorizedly moves behind the main signal device on railways where instalation of the system ERTMS (European Rail Traffic Management System) is not planned.

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## **ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	12 <sup>th</sup> September 2017, 5:23 (3:23 GMT).
Occurrence type:	damage of the overhead contact line.
Description:	overburning of the overhead contact line over the standing rolling stocks.
Type of train:	standing rolling stocks (preparation for the regional passenger train No. 8811).
Location:	Beroun station, the station track no. 5, km 38,865.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the standing rolling stocks).
Consequences:	0 fatalities, 0 injuries; total damage CZK 1 557,-
Direct cause:	<ul style="list-style-type: none"><li>• overburning of the overhead contact line caused by its heating when the traction current passed in contact with the contact strip of the contact strip collector.</li></ul>
Contributory factors:	<ul style="list-style-type: none"><li>• separation of the overhead contact line into more separately switchable section due to construction works at Beroun station and also reducing of load capacity of the overhead contact line over the station lines;</li><li>• uncompleted current interconnection between the 3<sup>rd</sup> and 5<sup>th</sup> station lines of Beroun station;</li><li>• inadequate (galvanic) interconnection of the newly inserted switches which connect the circuit of the classification yard and the passenger station of Beroun station;</li><li>• substitute interconnection of the removed rails on the line No. 95s and the station lines No. 213 - 219 made per ropes with insufficient cross-section;</li><li>• technical defect of the expanding section insulator No. ÚPD 13v in km 38,455.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• reducing of current load capacity of the overhead contact line over the station lines of the odd group of the circuit of the passenger station.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: serious accident.
- Date and time: 20<sup>th</sup> September 2017, 4:49 (2:49 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the regional passenger train No. 3530 with the lorry at the level crossing No. P7519.
- Type of train: the regional passenger train No. 3530.
- Location: Olomouc hlavní nádraží station, the level crossing No. P7519, km 0,580.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 3530);  
driver of the lorry (level crossing user).
- Consequences: 11 injuries;  
total damage CZK 1 987 079,-
- Direct cause:
- driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.
- Contributory factor: none.
- Underlying causes:
- driver's failure to respect of the light and sound warning and ride at the level crossing at the time when it was forbidden;
  - behavior of the driver in front of the level crossing, the car driver wasn't careful enough.
- Root cause: none.
- Recommendations:
- Addressed to The Czech National Safety Authority (NSA):
- it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;
  - change the level crossing system of the level crossing No. P7519 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.

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## **ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	29 <sup>th</sup> September 2017, 14:10 (12:10 GMT).
Occurrence type:	level crossing accident.
Description:	collision of freight train No. 86651 with a car at the level crossing No. P1703.
Type of train:	freight train No. 86651.
Location:	open line between Kryry and Vroutek stations, level crossing No. P1703, km 169,358.
Parties:	SŽDC, s. o. (IM); ČD Cargo, a. s. (RU of the freight train No. 86651); driver of the car (level crossing user).
Consequences:	1 fatality, 1 serious injury; total damage CZK 125 932,-
Direct cause:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.</li></ul>
Contributory factor:	none.
Underlying causes:	<ul style="list-style-type: none"><li>• driver's failure to respect of the light and acoustic warning of level crossing safety equipment;</li><li>• behaviour of the driver in front of the level crossing, the driver wasn't careful enough.</li></ul>
Root cause:	none
Recommendations:	
Addressed to The Czech National Safety Authority (NSA):	<ul style="list-style-type: none"><li>• it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;</li><li>• change the level crossing system of the level crossing No. P1703 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.</li></ul>

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**ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	11 <sup>th</sup> October 2017, 3:43 (1:43 GMT).
Occurrence type:	unauthorized movement.
Description:	unauthorized movement of the locomotive train No. 54204 past the main (departure) signal device S2 with signal “Stop” and ride to train road for freight train No. 54285.
Type of trains:	locomotive train No. 54204; freight train No. 54285.
Location:	Lipník nad Bečvou station, signal device S2, km 199,295.
Parties:	SŽDC, s. o. (IM); CER Slovakia a. s. (RU of the locomotive train No. 54204); Rail Cargo Carrier – Czech Republik, s. r. o. (RU of the freight train No. 54285).
Consequences:	0 fatality, 0 injury; total damage CZK 264 197,-
Direct cause:	<ul style="list-style-type: none"><li>train driver's of the locomotive train No. 54204 operational error (he did not respect signal “Stop” of the main signal device S2 at Lipník nad Bečvou station).</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>absence of technical equipment which prevents a train from passing a signal in case of danger.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>train driver took over the calling signal, signaling by the main (departure) signal device S1, which was not intended for the locomotive train No. 54204.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	serious accident.
Date and time:	27 <sup>th</sup> October 2017, 5:16 (4:16 GMT).
Occurrence type:	trains collision.
Description:	collision of tram No. 915011 course 105 with standing tram No. 915004 course 104 on the tram track.
Type of train:	tram No. 915011 course 105; tram No. 915004 course 104.
Location:	tram track between Ostrava, Třebovice, Třebovická and Ostrava, Svinov, Zahrádky tram stops in Ostrava, track line No. 03.
Parties:	Dopravní podnik Ostrava, a. s. (IM and RU of the trams).
Consequences:	14 injuries; total damage CZK 3 002 513,-
Direct cause:	<ul style="list-style-type: none"><li>• not stopping of the tram No. 915011 course 105 in front of the standing tram No. 915004 course 104.</li></ul>
Contributory factor:	none.
Underlying causes:	<ul style="list-style-type: none"><li>• control of the tram No. 915011 course 105 in such a way, which did not ensure the safe operation of rail transport during the traffic situation;</li><li>• the tram driver of the tram No. 915011 course 105 did not have full control of the driving due to reasons that are not identified and unspecified.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	2 <sup>nd</sup> November 2017, 23:55 (22:55 GMT).
Occurrence type:	trains collision.
Description:	collision of the freight train No. 53973 with the freight train No. 66021 with consequent derailment of 1 rolling stock.
Type of train:	freight train No. 53973; freight train No. 66021.
Location:	open line between Kostomlaty nad Labem and Lysá nad Labem stations, km 330,570.
Parties:	SŽDC, s. o. (IM); ČD Cargo, a. s. (RU of the freight trains No. 53973 and No. 66021).
Consequences:	0 fatality, 0 injury; total damage CZK 1 742 509,-
Direct cause:	<ul style="list-style-type: none"><li>• failure to stop of the freight train No. 53973 in front of the freight train No. 66021 at movement under condition for running on sight in occupied block section of the automatic block.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• failure to follow the signal repeater by the train driver of the freight train No 53973.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• failure to observe the technological procedures of the IM and the RU for condition for running on sight by train driver of the freight train No. 53973.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: serious accident.
- Date and time: 5<sup>th</sup> November 2017, 21:05 (20:05 GMT).
- Occurrence type: trains collision.
- Description: frontal collision of the tram No. 1 course 17 with the tram No. 1 course 3.
- Type of train: tram No. 1 course 17;  
tram No. 1 course 3.
- Location: tram track, switch No. 709, crossroad of Hybešova and Nádražní streets in Brno.
- Parties: Dopravní podnik města Brna, a. s. (IM and RU of the trams).
- Consequences: 10 injuries;  
total damage CZK 523 000,-
- Direct cause:
- movement of the tram No. 1 course 17 over the switch No. 709, which was not switched for required direction.
- Contributory factor for consequences:
- driver of the tram No. 1 course 17 did not keep the maximum permitted speed 15 km.h<sup>-1</sup> when driving against the tip of point blade of the switch No. 709.
- Underlying cause:
- insufficient check of the position of the switch No. 709, which was switched to direction Nové Sady loop.
- Root cause: none.
- Recommendation:
- Addressed to the Municipal Authority of Brno:
- it is recommended to take own measure forcing to replace the mechanical switch No. 709 for an electrically adjustable switch, or add the switch No. 709 with indication of point blades position.



## **ACCIDENT SUMMARY**

- Grade: a serious accident.
- Date and time: 13<sup>th</sup> November 2017, 7:34 (6:34 GMT).
- Occurrence type: a level crossing accident.
- Description: the collision of the regional passenger train No. 14212 with the lorry at the level crossing.
- Type of train: the regional passenger train No. 14212.
- Location: an open line between Lípa nad Dřevnicí station and Želechovice nad Dřevnicí railway stop, the level crossing No. P8251, km 17,427.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 14212);  
a lorry driver (a level crossing user).
- Consequences: 6 injuries;  
total damage CZK 635 300,-
- Direct cause:
- an unauthorized entry of the lorry at the level crossing No. P8251 at the time when it was forbidden.
- Contributory factor: none.
- Underlying cause:
- the entry of the lorry at the level crossing No. P8251 at the time when the arriving regional passenger train No. 14212 could be visible and audible;
  - behavior of the driver in front of the level crossing No. P8251, the lorry driver wasn't careful enough and didn't make sure whether he could safely pass the level crossing.
- Root cause: none.
- Recommendations:
- Addressed to The Czech National Safety Authority (NSA):
- it is recommended to adopt own measure for implementation of previously issued safety recommendations, which were issued to increase safety at the level crossings and to prevent similar accidents;
  - it is recommended to adopt own measure that the level crossings will be replaced with the interchanges or completely cancelled as much as possible during the reconstruction and the upgrading process of the railway lines, while ensuring an adequate alternative routes for other road users;
  - to enforce the cancellation of the level crossing No. P8251 and its replacement with the crossing for pedestrians at a suitable place while ensuring an adequate alternative routes for other road users;
  - to ensure that the traffic signs of the level crossing No. P8251 will be highlighted by a retroreflective yellow-green fluorescence base to emphasize their importance, which will significantly eliminate the possibility of their oversight while driving over the level crossing.

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Addressed to the Municipal Authority of Zlín:

- to ensure that the traffic signs of the level crossing No. P8251 will be highlighted by a retroreflective yellow-green fluorescence base to emphasize their importance, which will significantly eliminate the possibility of their oversight while driving over the level crossing.



## **ACCIDENT SUMMARY**

- Grade: accident.
- Date and time: 22<sup>nd</sup> November 2017, 4:43 (3:43 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the regional passenger train No. 18420 with the car with consequent derailment at the level crossing No. P6382.
- Type of train: the regional passenger train No. 18420.
- Location: open line between Obrataň and Chýnov stations, the level crossing No. P6382, km 47,208.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 18420);  
driver of the car (level crossing user).
- Consequences: 0 fatality, 1 injury;  
total damage CZK 621 423,-
- Direct cause:
- driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.
- Contributory factor: none.
- Underlying causes:
- driver's failure to respect of the light and sound warning and ride at the level crossing at the time when it was forbidden;
  - behavior of the driver in front of the level crossing, the car driver wasn't careful enough.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;
  - it is recommended to take own measure for change the level crossing system of the level crossing No. P6382 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.

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**ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	25 <sup>th</sup> November 2017, 18:08 (17:08 GMT).
Occurrence type:	an uncontrolled movement.
Description:	the uncontrolled movement of 9 rolling stocks with the consequent collision with the shunting operation and the derailment of 2 rolling stocks.
Type of train:	the 9 uncontrollably moving rolling stocks; the shunting operation.
Location:	„Vlečka Třineckých železáren a.s., Třinec“ siding, the track No. 1508; a place of the collision and derailment: the switch No. 156 between tracks No. 1507 and 1508.
Parties:	TŘINECKÉ ŽELEZÁRNY, a. s. (IM and RU of the shunting operation and the 9 uncontrollably moving rolling stocks).
Consequences:	0 fatality, 0 injury; total damage CZK 263 705.
Direct cause:	<ul style="list-style-type: none"><li>the spontaneous uncontrolled movement of 9 rolling stocks in the direction of the down gradient of the track.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>insufficient security against uncontrolled movement of 9 rolling stocks in accordance with the uniform technological procedures of the IM and RU.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	serious accident.
Date and time:	1 <sup>st</sup> December 2017, 20:25 (19:25 GMT).
Occurrence type:	train derailment.
Description:	derailment of one rolling stock of the freight train No. 67260 with consequent disruption of the train into 3 parts.
Type of train:	freight train No. 67260.
Location:	open line between Libčice nad Vltavou and Kralupy nad Vltavou stations, track line No. 2, km 433,294.
Parties:	SŽDC, s. o. (IM); ČD Cargo, a. s. (RU of the freight train No. 67260).
Consequences:	0 fatality, 0 injury; total damage CZK 16 734 700,-
Direct cause:	<ul style="list-style-type: none"><li>fatigue fracture of the axle No. 018895579 of the freight wagon No. 31 51 5318 167-4 with consequent fall down of an axelbox.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>weakening cross section of axel's pivot due to expansion of old fracture, which could not be detected by the maintenance.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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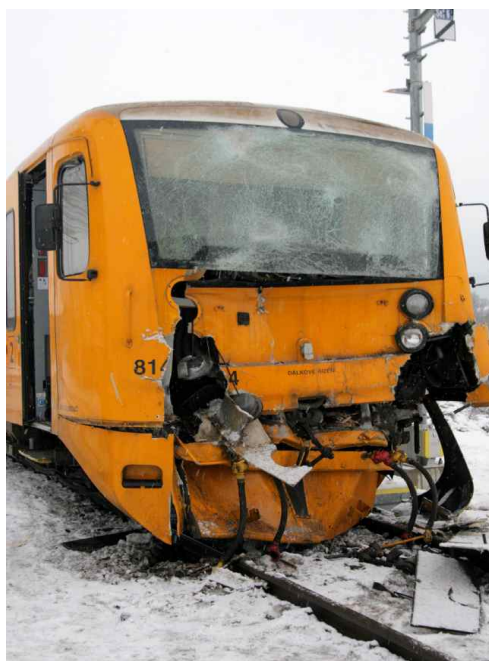


## **ACCIDENT SUMMARY**

- Grade: accident.
- Date and time: 4<sup>th</sup> December 2017, 12:01:01 (11:01:01 GMT).
- Occurrence type: trains collision.
- Description: unauthorized movement of the regional passenger train No. 23213 behind the BS signal device with signal "Stop", a collision with a shunting operation and consequent derailment with one axle of the train
- Type of train: regional passenger train No 23213;  
shunting operation.
- Location: Bynice station, signal device BS, km 156,874. Place of the collision was in km 157,364.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 23213);  
ČD Cargo, a. s. (RU of the shunting operation).
- Consequences: 3 injuries;  
total damage CZK 2 970 000,-
- Direct cause:
- train driver operation error, he did not respect the signal "Stop" of the signal device BS.
- Contributory factor:
- non-reconfiguration of the vehicle radio station by the train driver of the train No. 23213 according to the instructions of the non-variable radio traffic light and its failure to respond to the signal "General stop" transmitted by the base station of the track radio system on the ribbon No. 65, upon receipt of the requirement of the station security device "Warning signal, passing of a signal";
  - failure to stop the executed shunting operation within a set deadline when the shunting operation was preferred to the train in contrary to the provisions of the technological procedures of the IM even though the shunting operation was not more urgent.
- Underlying cause:
- controlling the drive train of the train No. 23213 in a way that did not ensure compliance with the obligation to stop the train safely from the signal location;
  - the train driver of the train No. 23213 did not act according to the facts observed when observing the signal given by the signal variables of the station interlocking station of the railway station Bynice and the non-variable signal for radio traffic.
- Root cause: none.
- Recommendation:
- The Railway Safety Inspection Office not issue the safety recommendation however the RSIO, in the interest of the safety of rail transport, considers it necessary draw an attention to NSA and IM to errors in the structure and the wording of the ambiguous interpretation and application of the selected rules (technological procedures) in the

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implementing act SZB (regulation SŽDC D1), which the IM uses in the organization of the shunting operation with regard to train movements at stations, as detailed described in point 3.1.2.



**ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	8 <sup>th</sup> December 2017, 6:24 (5:24 GMT).
Occurrence type:	train derailment.
Description:	unauthorized movement of the shunting operation with consequent derailment.
Type of train:	shunting operation.
Location:	Plzeň hlavní nádraží station, switch No. 253, km 348,120.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the shunting operation).
Consequences:	0 fatality, 0 injury; total damage CZK 950 000,-
Direct cause:	<ul style="list-style-type: none"><li>• failure to positioning of the switch No. 253 to the end position for the intended train route.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• failure to observe the technological procedures of the IM by the leader of the shunting operation, who not checked the correct position of the shunting route.</li></ul>
Root cause:	none.
Recommendation:	none.

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**ACCIDENT SUMMARY**

Grade:	an accident.
Date and time:	15 <sup>th</sup> December 2017, 9:18 (8:18 GMT).
Occurrence type:	an unauthorized movement.
Description:	the unauthorized movement of the regional passenger train No. 25907 behind the signal „End of the train route” and its collision with the buffer stop.
Type of train:	the regional passenger train No. 25907.
Location:	Praha hl. n. station, the station track No. 13a, the signal „End of the train route”, km 185,714.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 25907).
Consequences:	2 injuries; total damage CZK 6 500,-
Direct cause:	<ul style="list-style-type: none"><li>• failure to respect the signal „Stop” of the signal device Lc13a by the train driver and the unauthorized movement of the train behind the signal device with the signal „End of the train route”.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• absence of technical equipment which prevents a train from passing a signal in case of danger.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• failure of compliance with the technological procedures of the IM and RU by the train driver, who did not ensure to stop the train in front of the signal device Lc13a with the signal „End of the train route”, respectively in front of the buffer stop of the station track No. 13a.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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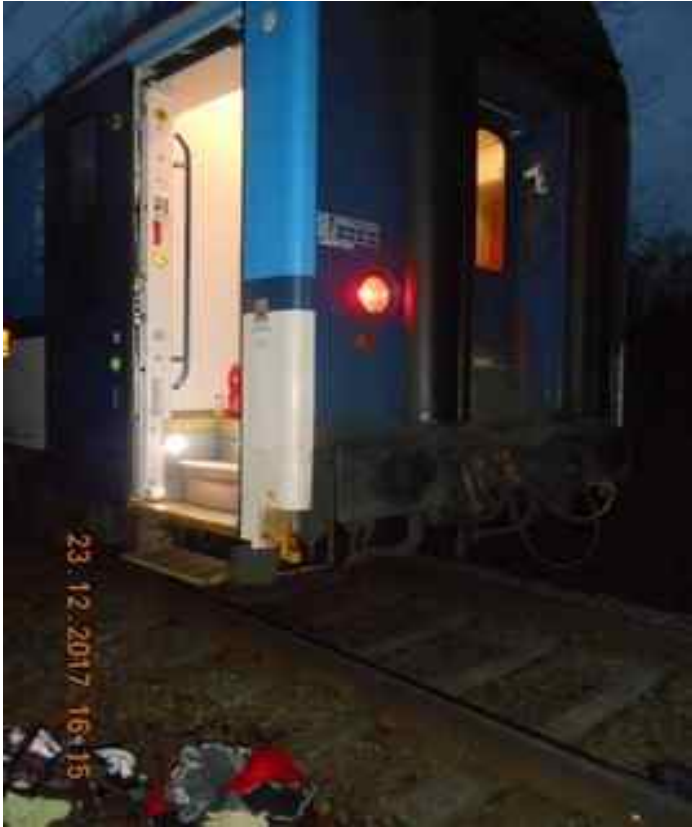


**ACCIDENT SUMMARY**

Grade:	an accident.
Date and time:	23 <sup>rd</sup> December 2017, 14:51 (13:51 GMT).
Occurrence type:	an accident to person caused by the rolling stock in motion.
Description:	the towing of the passenger who was trapped by the door of the long distance passenger train No. 891 at the time of the train departure from Česká Třebová station.
Type of train:	the long distance passenger train No. 891.
Location:	Česká Třebová station, between station tracks No. 12 and 14, km 0,177.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the long distance passenger train No. 891).
Consequences:	1 fatality; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none"><li>• the attempt of the passenger to get into the rolling stock in motion from a point inaccessible to the public.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• ingestion of alcohol by the passenger before his risky behavior.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• risky behavior of the passenger, consisting in his behavior at the time when the train was standing at Česká Třebová station and at the time of its departure from Česká Třebová station.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: accident.
- Date and time: 4<sup>th</sup> January 2018, 12:36 (11:36 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the regional passenger train No. 7907 with the car at the level crossing No. P558 with consequent derailment.
- Type of train: the regional passenger train No. 7907.
- Location: open line between Lochovice and Zdice stations, the level crossing No. P558, km 94,654.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 7907);  
driver of the car (level crossing user).
- Consequences: 1 fatality and 1 minor injury;  
total damage CZK 523 600,-
- Direct cause:
- driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.
- Contributory factor: none.
- Underlying causes:
- driver's failure to respect of the light and sound warning and ride at the level crossing at the time when it was forbidden;
  - behavior of the driver in front of the level crossing, the car driver wasn't careful enough.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;
  - due to repetition of a similar accidents with tragic consequences at the level crossing No. P558 which is equipped with warning lights, to take own measure for change the level crossing system of the level crossing No. P558 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.

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## **ACCIDENT SUMMARY**

- Grade: an accident.
- Date and time: 6<sup>th</sup> January 2018, 8:06 (7:06 GMT).
- Occurrence type: an accident to a person caused by a rolling stock in motion.
- Description: the collision of the tram No. 3 course 105 with the employee of Dopravní podnik Ostrava, a. s., with the consequent collision with the obstacle.
- Type of train: the tram No. 3 course 105.
- Location: the track line No. 03, the tram stop Zahrádky.
- Parties: Dopravní podnik Ostrava, a. s. (IM and RU of the tram).
- Consequences: 1 injury;  
total damage CZK 3 000,-
- Direct cause:
- the tram No. 3 course 105 did not stop in front of the track-side worker.
- Contributory factor:
- failure to secure a working place at the track No. 1 at Zahrádky tram stop by a stated signal device.
- Underlying causes:
- a tram driver of the tram No. 3 course 105 did not take full control of driving due to reasons which were not reliably identified;
  - persons responsible for maintaining the track started working at the place (track No. 1), which was not secured by the stated signal device;
  - persons responsible for maintaining the track did not take care of their own safety, own health and the safety and health of other people at the track.
- Root cause:
- failure to designate a person responsible for identifying a trained, professionally competent person who, if necessary, gives the signals to the tram drivers or the signs to other road users, and who is responsible for security (cover) of the working place by the signal devices.
- Recommendation:
- Addressed to the Municipal Authority of Ostrava:
- it is recommended to adopt own measure forcing specification of the work organization and work practices so that before work starts a person responsible for identifying a well-trained person who, if necessary, will give the signals to railroad drivers or the signs to other road users, and who will be responsible for the correct location of the portable lights and for security (cover) of the working place, will do so.



**ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	11 <sup>th</sup> January 2018, 4:14 (3:14 GMT).
Occurrence type:	a train derailment.
Description:	the derailment of the regional passenger train No. 5034 at the switch.
Type of train:	the regional passenger train No. 5034.
Location:	Králíky operating control point, the switch No. 8, km 2,957.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 5034).
Consequences:	0 fatality, 0 injury; total damage CZK 18 324,-
Direct cause:	<ul style="list-style-type: none"><li>• failure to stop the train No. 5034 in front of the switch rail.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• failure to change the traffic direction to backwards when trying to release the switch rail.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• failure to observe the technological procedures of the infrastructure manager by the train driver of the train No. 5034 when driving the train at the switch which was not switched for required traffic direction, respectively behind the track convergence marker between the tracks no. 1 and 3, because of the reasons which could not be ascertained during the investigation.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	14 <sup>th</sup> January 2018, 13:01 (12:01 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the long distance passenger train No. 810 with a car at the active level crossing No. P6795.
Type of train:	long distance passenger train No. 810.
Location:	open line between Zaječí and Šakvice stations, the active level crossing No. P6795, track line No. 2, km 105,959.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the long distance passenger train No. 810); driver of the car (level crossing user).
Consequences:	1 fatality, 1 injury; total damage CZK 5 666 000,-
Direct cause:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden, visual and acoustic warnings were being given and barriers were in the down position.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• driver's knowingly failure to respect of the light, sound and mechanical warnings and ride at the level crossing at the time when it was forbidden.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	18 <sup>th</sup> January 2018, 8:52 (7:52 GMT).
Occurrence type:	unauthorized movement.
Description:	unauthorized movement of the service train No. 269294 behind the route signal device Lc2a and the consequent ride on the station track behind the regional passenger train No. 7716.
Type of train:	service train No. 269294; regional passenger train No. 7716.
Location:	Beroun station, station track No. 2a, route signal device Lc2a, km 38,293.
Parties:	SŽDC, s. o. (IM, RU of the service train No. 269294); ČD, a. s. (RU of the regional passenger train No. 7716).
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none"><li>• an operational error of the train driver of the service train No. 269294 (he did not respect signal “Stop” of the signal device Lc2a at Beroun station).</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• absence of technical equipment which prevents a train from passing a signal in case of danger.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• failure to comply with technological procedures of RU and IM by the train driver of the service train No. 269294, due to insufficient attention.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	24 <sup>th</sup> January 2018, 11:24 (10:24 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 6707 with the backhoe-loader at the level crossing No. P2158.
Type of train:	the regional passenger train No. 6707.
Location:	open line between Břvany and Lenešice stations, the level crossing No. P2158, km 104,952.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 6707); driver of the backhoe-loader (level crossing user).
Consequences:	3 minor injuries; total damage CZK 3 442 569,-
Direct cause:	<ul style="list-style-type: none"><li>standing of the backhoe-loader at the dangerous area of the level crossing at the time of movement of the regional passenger train No. 6707.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>the impossibility to leave the dangerous area of the level crossing by the backhoe-loader due to inactive motor because of lack of fuel in the tank.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

Grade: an accident.

Date and time: 31<sup>st</sup> January 2018, 4:32 (3:32 GMT).

Occurrence type: a level crossing accident.

Description: the collision of the regional passenger train No. 15900 with the car at the level crossing.

Type of train: the regional passenger train No. 15900.

Location: an open line between Skovice operational control point and Čáslav místní nádraží station, the level crossing No. P3737, km 2,140.

Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 15900);  
a car driver (a level crossing user).

Consequences: 1 fatality (the car driver);  
total damage CZK 505 400,-

Direct cause:

- an unauthorized entrance of the car at the level crossing at the time when the train No. 15900 was arriving.

Contributory factor: none.

Underlying causes:

- the entrance of the car at the level crossing at the time when the arriving train could be visible;
- driver's behavior in front of the level crossing, the car driver was not careful enough.

Root cause: none.

Recommendation:

Addressed to The Czech National Safety Authority (NSA):

- due to the fact that serious train collisions with road vehicles occurred at the level crossing No. P3737 in 2011, 2017 and 2018, as well as the fact that the level crossing No. P3737 crosses a 1<sup>st</sup> class road with a traffic moment 364 320 and it is secured only with the warning crosses, the RSIO recommends to the Czech National Safety Authority to ensure increase of the security level of the level crossing and to insist on the addition of the level crossing safety equipment with barriers at this frequented level crossing when negotiating with the IM about a change, which is able to reduce probability of the driver's entrance at the level crossing when he does not respond to the light and acoustic warnings;
- it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only the level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of the railway tracks.

Addressed to the Regional Authority of the Central Bohemia Region as the Road Administration Office in cases of the I. class road:

- to adopt own measure to ensure that the road marking V18 "Optical Psychological Brake", which guides the driver to reduce speed, will be added onto the road No. I/17 in

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the direction from Čáslav in front of the level crossing No. P3737, which is currently secured only with the warning crosses;

- to ensure that the traffic signs A 31a "Signboard (240 m)", A 30 "Level crossing without barriers", A 31b "Signboard (160 m)" and A 31c "Signboard (80 m)" which are placed before the level crossing P3737 on the road No. I/17 in both directions, will be retrofitted with yellow reflective coloring to highlight the designated traffic signs.





**ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	15 <sup>th</sup> February 2018, 9:11 (8:11 GMT).
Occurrence type:	an unsecured movement.
Description:	the unsecured movement of the regional passenger trains No. 5815 and No. 5810 at Praha-Horní Počernice station.
Type of train:	the regional passenger trains No. 5815 and No. 5810.
Location:	Praha-Horní Počernice station, an entry signal device S, km 21,335.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger trains No. 5815 and No. 5810);
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none"><li>• the entrance of the regional passenger train No. 5815 onto a different track than was determined, and its ride against the departing regional passenger train No. 5810.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• failure of compliance of the technological procedures of the IM when preparing a train route, which was caused by:<ul style="list-style-type: none"><li>◦ an incorrect manipulation with a station interlocking equipment;</li><li>◦ a failure to identify the incorrect train route position, which was indicated by the station interlocking equipment;</li><li>◦ a verbal confirmation of the correct position of the train routes for the regional passenger trains No. 5810 and No. 5815 by the signalwoman, even though the switches were not correctly switched.</li></ul></li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	16 <sup>th</sup> February 2018, 13:47 (12:47 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 3420 with the car at the level crossing.
Type of train:	regional passenger train No. 3420.
Location:	Ostrava-Třebovice station, the level crossing No. P7724, km 263,911.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 3420); driver of the car (level crossing user).
Consequences:	1 fatality, 1 serious injury; total damage CZK 1 643 200,-
Direct cause:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning and driving across the level crossing No. P7724 at the time when it was forbidden.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• behavior of the driver in front of the level crossing No. P7724, the car driver wasn't careful enough and didn't make sure whether she could safely pass the level crossing.</li></ul>
Root cause:	none.
Recommendations:	
Addressed to The Czech National Safety Authority (NSA):	<ul style="list-style-type: none"><li>• it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;</li><li>• change the level crossing system of the level crossing No. P7724 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.</li></ul>

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**ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	28 <sup>th</sup> February 2018, 8:33 (7:33 GMT).
Occurrence type:	unauthorized movement.
Description:	unauthorized movement of shunting operation behind the signal device Se42, collision with a restraint sleeper and buffer with consequent derailment of two rolling stocks.
Type of train:	shunting operation.
Location:	Českomoravský cement, závod Praha Radotín siding, signal device Se42, km 0,066.
Parties:	Českomoravský cement, a.s. (IM and RU of the shunting operation).
Consequences:	1 injury; total damage CZK 952 278,-
Direct cause:	<ul style="list-style-type: none"><li>• head of the shunting operation error (he did not respect signal “Shunting forbidden” of the signal device Se42).</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• failure to observation of the signal at the signal device Se42 by the head of the shunting operation by the technological procedures of IM.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

Grade: an incident.  
Date and time: 3<sup>rd</sup> March 2018, 10:24 (9:24 GMT).  
Occurrence type: a train derailment.  
Description: the derailment of 1 rolling stock during the movement of the freight train No. 45730.  
Type of train: the freight train No. 45730.  
Location: Přerov station, the switch No. 213, km 182,595.  
Parties: SŽDC, s. o. (IM);  
ČD Cargo, a. s. (RU of the freight train No. 45730).  
Consequences: 0 fatality, 0 injury;  
total damage CZK 498 111,-

Direct cause:

- an impact of the left wheel of the third axle of the rolling stock on the damaged switch rail of the switch No. 213 at Přerov station.

Contributory factor of continue incident action:

- an inappropriate shape of the wheel flange of the left wheel of the third axle of the derailed rolling stock, which was moving between the non-adjacent left switch rail to a left stock rail and the left stock rail of the switch No. 213 after the derailment.

Underlying cause:

- an inconsistent use of the established safety management system of the railway operating which resulted in situation when the switch No. 213 with defects which were immediately endangering the safety operating of the railway and railway transport was kept in operation.

Root cause: none.

Recommendation:

Addressed to The Czech National Safety Authority (NSA):

- to adopt own measure aimed not only to the IM (Správa železniční dopravní cesty, s. o.), but also to the other IMs in the Czech Republic which ensure that these IMs (of the national or regional railways) will unambiguously determine things mentioned bellow in the content of their technological procedures which are part of their safety management system of the railway operating in the case of occurrence of a rail break or a lateral crack of the head of the stock rail of the 1<sup>st</sup> or 2<sup>nd</sup> generation switches which are laid on the wooden sleepers, not only at the place of rail bearing-plates with the slide baseplates:
  - whether it is possible to temporarily repair these rail breaks or lateral cracks by coupling or other modification to prevent their further development, until the defect will be finally repaired;
  - a specific repair procedure whether it is possible to make this preliminary repair.

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**ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	22 <sup>nd</sup> March 2018, 4:28 (3:28 GMT).
Occurrence type:	an unauthorized movement.
Description:	the unauthorized movement of the freight train No. 62171 behind the signal device S2 and the consequent trailing of the point no. 3 and the ride of the freight train No. 62171 on the station track no. 2 in direction to Blažkovice station against the regional passenger train No. 4140.
Type of train:	the freight train No. 62171; the regional passenger train No. 4140.
Location:	Šlapanice station, the station track No. 2, the departure signal device No. S2, km 10,765.
Parties:	SŽDC, s. o. (IM) ; ČD, a. s. (RU of the regional passenger train No. 4140); ČD Cargo, a. s. (RU of the freight train No. 62171).
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none"><li>an operational error of the train driver of the freight train No. 62171 (he did not respect signal “Stop” of the main signal device S2 at Šlapanice station).</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>an absence of the technical means of security which will be able to actively intervene in driving and to prevent the unauthorized movement behind the main signal device which prohibits riding in case of the train driver’s failure (an error or a mistake).</li></ul>
Underlying causes:	<ul style="list-style-type: none"><li>driving the locomotive of the freight train No. 62171 in a way that did not ensure compliance with the obligation to stop the train safely in front of the signal device due to train driver’s misinterpretation of the conversation with the station dispatcher of Šlapanice station.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade: incident.

Date and time: 30<sup>th</sup> March 2018, 2:06 (0:06 GMT).

Occurrence type: train derailment.

Description: unauthorized movement of the shunting operation with consequent derailment of one rolling stock.

Type of train: shunting operation.

Location: Čelákovice station, switch No. 19, km 8,764.

Parties: SŽDC, s. o. (IM);  
ČD, Cargo, a. s. (RU of the shunting operation).

Consequences: 0 fatality, 0 injury;  
total damage CZK 1 605 200,-

Direct cause:

- failure to positioning of the switch No. 19 to the prescribed position for the intended shunting operation route.

Contributory factor: none.

Underlying cause:

- failure to observe the technological procedures of the IM by the station dispatcher, who did not checked the correct position of the shunting route before permission to shunting operation movement.

Root cause: none.

Recommendation: not issued.

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**ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	6 <sup>th</sup> April 2018, 10:17 (8:17 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 19709 with a car at the level crossing.
Type of train:	regional passenger train No. 19709.
Location:	open line between Rakovník and Lužná u Rakovníka stations, the level crossing No. P244, km 1,103.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 19709); driver of the car (level crossing user).
Consequences:	1 fatality; total damage CZK 469 400,-
Direct cause:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.</li></ul>
Contributory factor:	none.
Underlying causes:	<ul style="list-style-type: none"><li>• driver's failure to respect of the light and sound warning and ride at the level crossing at the time when it was forbidden;</li><li>• behavior of the driver in front of the level crossing, the car driver wasn't careful enough.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: an accident.
- Date and time: 17<sup>th</sup> April 2018, 12:33 (10:33 GMT).
- Occurrence type: a level crossing accident.
- Description: the collision of the long distance passenger train No. 1246 with the car at the level crossing.
- Type of train: the long distance passenger train No. 1246.
- Location: an open line between Lochovice and Zdice stations, the level crossing No. P558, km 94,654.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the long distance passenger train No. 1246);  
the car driver (a level crossing user).
- Consequences: 1 fatality;  
total damage CZK 362 650,-
- Direct cause:
- driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.
- Contributory factor: none.
- Underlying causes:
- driver's failure to respect the light and acoustic warning and his ride at the level crossing at the time when it was forbidden;
  - behavior of the driver in front of the level crossing, the car driver wasn't careful enough.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only level crossing system with warning lights and barriers will be designed, installed and approved at the level crossings at time of reconstruction and modernization of railway tracks and level crossings;
  - due to repetition of similar accidents with tragic consequences at the level crossing No. P558 which is equipped with warning lights (there were 3 similar accidents with the death of car drivers from 30<sup>th</sup> July 2017 to 17<sup>th</sup> April 2018) it is recommended to adopt own measure to change the level crossing system of the level crossing No. P558 which should be added with barriers as an optical barrier which is able to reduce the probability of a driver's entrance at the level crossing when the driver does not respond to the light and acoustic warning of the crossing system.

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**ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	23 <sup>rd</sup> April 2018, 13:29 (11:29 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 7908 with a car at the level crossing with consequent derailment.
Type of train:	regional passenger train No. 7908.
Location:	open line between Lochovice and Jince stations, level crossing No. P552, km 87,595.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 7908); driver of the car (level crossing user).
Consequences:	1 serious injury; total damage CZK 814 200,-
Direct cause:	<ul style="list-style-type: none"><li>standing of the car at the dangerous area of the level crossing at the time of the train movement.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>the impossibility to leave the dangerous area of the level crossing by the car due to deadlock of left front wheel between stretch of rails outside of level crossing roadway.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	serious accident.
Date and time:	8 <sup>th</sup> May 2018, 7:17 (5:17 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 5340 with a trailer (agricultural machine) at the level crossing.
Type of train:	regional passenger train No. 5340.
Location:	open line between Cejřov passing point and Chrast u Chrudimi station, level crossing No. P5321, km 59,750.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 5340); driver of the tractor (level crossing user).
Consequences:	0 fatality, 0 injury; total damage CZK 6 502 166,-
Direct cause:	<ul style="list-style-type: none"><li>• deadlock of a trailer (agricultural machine) at the level crossing No. 5321 after its previous disengagement from the tractor and its spontaneous ride into the area of the level crossing.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• movement of the technically incompetent vehicle on the road.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: accident.
- Date and time: 22<sup>nd</sup> May 2018, 17:56 (15:56 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the regional passenger train No. 20323 with a motorcycle at the level crossing.
- Type of train: regional passenger train No. 20323.
- Location: open line between Velvary operating control point and Kralupy nad Vltavou předměstí station, level crossing No. P2104, km 4,217.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 20323);  
a motorcycle driver (level crossing user).
- Consequences: 1 fatality, 0 injury;  
total damage CZK 648 208,-
- Direct cause:
- driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and the visual and acoustic warnings were being given.
- Contributory factor: none.
- Underlying causes:
- driver's failure to respect the light and acoustic warning of the level crossing safety equipment;
  - driver's behavior in front of the level crossing, the driver was not careful enough.
- Root cause: none.
- Recommendations:
- Addressed to The Czech National Safety Authority (NSA):
- it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only the level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of the railway tracks;
  - change of the level crossing system of the level crossing No. P2104 to a level crossing system equipped with barriers, which from the point of view as an optical barrier will reduce probability of the driver's entrance at the level crossing when a driver does not respond to the light and acoustic warning of the level crossing safety equipment and to adopt measure, which ensure that the traffic sign A 32a „Warning cross for monorail level crossing” in both directions, will be retrofitted with yellow reflective coloring to highlight.
- Addressed to the Municipal Authority of Kralupy nad Vltavou as the Road Administration Office in the field of roads II. Class:
- to ensure that the traffic signs A 31a "Signboard (240 m)", A 30 "Level crossing without barriers", A 31b "Signboard (160 m)" and A 31c "Signboard (80 m)" which are placed before the level crossing P2104 in both directions, will be retrofitted with yellow reflective coloring to highlight the designated traffic signs.

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## **ACCIDENT SUMMARY**

- Grade: accident.
- Date and time: 23<sup>rd</sup> May 2018, 12:34 (10:34 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the regional passenger train No. 8709 with a lorry at the level crossing.
- Type of train: regional passenger train No. 8709.
- Location: Nová Ves nad Lužnicí station, the level crossing No. P5588, km 6,882.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 8709);  
driver of the lorry (level crossing user).
- Consequences: 1 injury;  
total damage CZK 4 813 960,-
- Direct cause:
- driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.
- Contributory factor: none.
- Underlying causes:
- driver's failure to respect of the light and sound warning and ride at the level crossing at the time when it was forbidden;
  - behavior of the driver in front of the level crossing, the car driver wasn't careful enough.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;
  - change the level crossing system of the level crossing No. P5588 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.

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## **ACCIDENT SUMMARY**

- Grade: an incident.
- Date and time: 27<sup>th</sup> May 2018, 7:44 (5:44 GMT).
- Occurrence type: an unauthorized movement.
- Description: the unauthorized movement of the shunting operation behind the departure signal device L1 at the railway station Praha-Vršovice classification yard and its entry into train route of the train set No. 29977.
- Type of train: the shunting operation;  
the train set No. 29977.
- Location: the railway station Praha-Vršovice classification yard, the departure signal device L1, km 10,458.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the train set No. 29977 and the shunting operation and the IM of the siding).
- Consequences: 0 fatality, 0 injury;  
total damage CZK 0,-
- Direct cause:
- failure to respect the signal "Stop" of the main (departure) signal device L1 at the railway station Praha-Vršovice classification yard, a departure station, by the shifter in front of the sliding shunting part.
- Contributory factor: none.
- Underlying cause:
- the shifter in front of the sliding shunting part issued an instruction to initiate a shunting operation, after his previous incorrect assumption of a light signal which was invalid by its meaning for shunting and which was given by a static variable signal which was invalid for a track where the shunting part was standing.
- Root cause: none.
- Recommendations:
- Addressed to The Czech National Safety Authority (NSA):
- to adopt own measure which ensure:
    - the compliance with the rules for radio communication between the IM's and RU's staff when organizing and carrying out the shunting operations (especially in nodal stations) during their control activities;
    - the reassessment of the control system to ensure the compliance with the rules for radio communication by the IM of the siding and the IM of the national-wide railway, who cooperate on shunting operations at the railway station Praha-Vršovice classification yard, a signalbox Departure, when organizing and carrying out the shunting operations between the „DKV Praha PJ Vršovice“ siding and the national-wide railway.
  - to adopt own measure which ensure modification of the relevant technological procedures of the IM of the „DKV Praha PJ Vršovice“ siding so that:
    - these will contain the rules for transference of the authorization to perform the shunting operation leader function in cases when a person, who is permanently

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authorized to perform this function by an internal regulation, does not obey his function regardless of the reason;

- the situation when the employee, who does normally not participate on actions at the circuit of the siding which follows up the nation-wide railway, is authorized by the IM of the siding to negotiate and accept the permission and consent to shunting operation between the siding and the nation-wide railway which is represented by the circuit of the railway station Praha-Vršovice classification yard, the signalbox Departure, will be removed.



## **ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	28 <sup>th</sup> May 2018, 5:06 (3:06 GMT).
Occurrence type:	an unauthorized movement.
Description:	the unauthorized movement of the freight train No. 43333 behind the main (route) signal device Sc1 with the consequent movement into the train route of the regional passenger train No. 6905.
Type of train:	a freight train No. 43333; a regional passenger train No. 6905.
Location:	Ústí nad Labem hlavní nádraží station, the station track No. 1, the signal device Sc1, km 516,752.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 6905); METRANS Rail, s. r. o. (RU of the freight train No. 43333).
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none"><li>the train driver's of the freight train No. 43333 operational error (he did not respect the signal „Stop” of the main route signal Sc1 at Ústí nad Labem hlavní nádraží station).</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>an absence of the technical equipment which prevents a train from passing a signal in case of danger.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>a mistake of the train driver of the freight train No. 43333 who mistook the signal at the main (route) signal device Sc3 which was not for the track line No. 1 for the signal at the main (route) signal device Sc1.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: an accident.
- Date and time: 4<sup>th</sup> June 2018, 8:31 (6:31 GMT).
- Occurrence type: a level crossing accident.
- Description: the collision of the regional passenger train No. 17803 with the car at the level crossing.
- Type of train: the regional passenger train No. 17803.
- Location: an open line between Stupno operating control point and Chrást u Plzně station, the level crossing No. P448.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 17803);  
a car driver (a level crossing user).
- Consequences: 1 fatality, 0 injury;  
total damage CZK 258 000,-
- Direct cause:
- driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and the visual and acoustic warnings were being given.
- Contributory factor: none.
- Underlying causes:
- driver's failure to respect the light and acoustic warning of the level crossing safety equipment;
  - driver's behavior in front of the level crossing, the driver was not careful enough.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of railway tracks and the level crossings;
  - change of the level crossing system of the level crossing No. P448 to a level crossing system equipped with barriers, which from the point of view as an optical barrier will reduce probability of the driver's entrance at the level crossing when a driver does not respond to the light and acoustic warning of the level crossing safety equipment.

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## **ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	11 <sup>th</sup> July 2018, 17:51 (15:51 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the long distance passenger No. 352 with a car at the level crossing.
Type of train:	the long distance passenger train No. 352.
Location:	Staňkov station, the level crossing No. P619, km 148,280.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the long distance passenger train No. 352); a car driver (level crossing user).
Consequences:	1 fatality and 3 injuries; total damage CZK 452 948,-
Direct cause:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.</li></ul>
Contributory factor:	none.
Underlying causes:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning of the level crossing safety equipment;</li><li>• driver's behavior in front of the level crossing, the driver was not careful enough.</li></ul>
Root cause:	none.
Recommendation:	
Addressed to The Czech National Safety Authority (NSA):	<ul style="list-style-type: none"><li>• it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of railway tracks and the level crossings;</li><li>• change of the level crossing system of the level crossing No. P619 to a level crossing system equipped with barriers, which from the point of view as an optical barrier will reduce probability of the driver's entrance at the level crossing when a driver does not respond to the light and acoustic warning of the level crossing safety equipment.</li></ul>

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