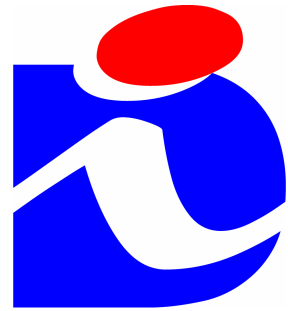




Czech Republic



The Rail Safety  
Inspection Office

# **NIB ANNUAL REPORT 2021**

according to Article 24(3) of Directive (EU) 2016/798

The Rail Safety Inspection Office

Czech Republic

September 2022





## **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 (EU) 2016/798, 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 2021, pursuant to Art. 24(3) of Directive (EU) 2016/798. 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 2021
- the safety recommendations issued



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

### **1.1 Legal framework**

Directive (EU) 2016/798 was implemented into the national legislation of the Czech Republic 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, as amended.

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) and where needed by reason of the character of the recommendation, to the European Union Agency for Railways, other administration bodies and authorities or other relevant bodies of different member states.



### 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

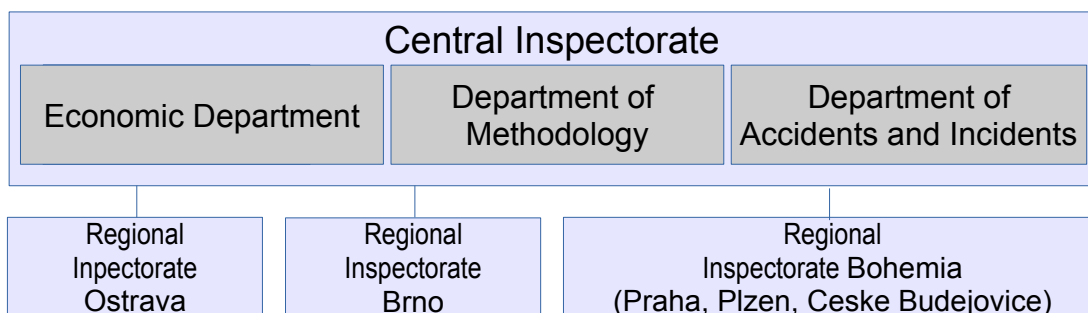
The Rail Safety Inspection Office has a total of **38 employees** in five cities of the Czech Republic (Ostrava, Brno, Praha, Plzen, Ceske Budejovice). It comprises of the Central Inspectorate and three regional inspectorates covering the area of the entire country. The Central Inspectorate consists 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

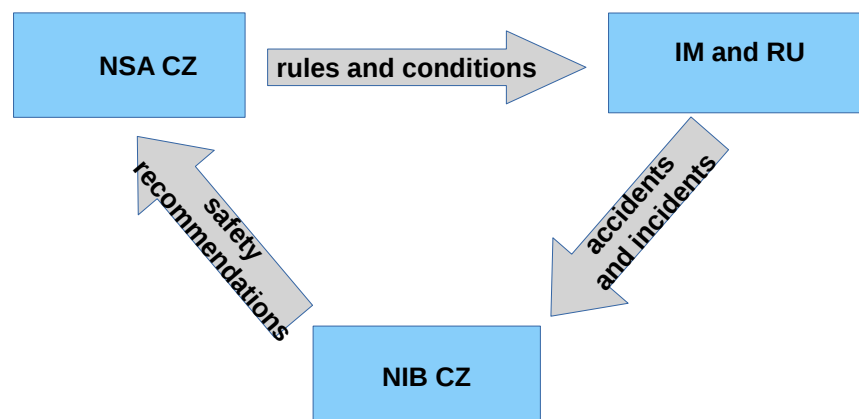
The structure of railway sector in the Czech Republic and relationships among the parties involved are defined in Act 266/1994 Coll., on Railways, as amended, and its implementing regulations. The legislation applies to the following transport systems:

- 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, authorization 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 can 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 set legal requirements (seriousness, repeating, impact on railway safety, requests from infrastructure managers, railway undertakings, the national safety authority or the Member States) 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 contribution factors 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. The investigation of accident or incident may be launched immediately after the occurrence and/or later, in reaction to specific circumstances. If The Rail Safety Inspection Office launches an investigation, it will notify the European Union Agency for Railways within seven days.

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 Regulation (EU) 2020/572. 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 2021 identifying key trends

Trends of completed investigations (last column of the table) are calculated as difference to previous year (2020).

Type of accidents investigated	Number of accidents	Number of victims		Damages in € (approx.)	Trends in relation to previous year
		Deaths	Injury *		
Collisions	16	4	156	6.550.453,-	+167 %
Derailments	8	0	3	1.273.983,-	0 %
LC-accident	11	6	27	2.940.430,-	-21 %
Fire in RS	0	0	0	0	0 %
Acc. to person	1	1	0	0	-83 %
Other	4	0	1	0	-71 %

\* In the national legislation of the Czech Republic in Act 266/1994 Coll., on Railways, as amended, is already mentioned only term harm to health (there is no definition of serious injury or any other classification of injuries),

#### 3.2 Investigations completed and commenced in 2021

##### Investigations completed in 2021

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Completed (date)
14. 12. 2018	Train derailment: in Nymburk hlavní nadrazi station	i	22. 3. 2021
22. 1. 2019	Level-crossing accident: km 5,446 between Vesec u Liberce – Jablonec nad Nisou stations	i	12. 2. 2021
1. 4. 2019	Other: Collision of the trolleybus with the tram in The City of Brno – in the area of the road crossing Masna, Krenova and Kozeluzska streets	ii	10. 3. 2021
17. 9. 2019	Other: Tram train derailment in The City of Praha – between Baterie – Orechovka stops	ii	29. 6. 2021
3. 11. 2019	Train derailment: in Praha Malesice station	i	17. 2. 2021
5. 11. 2019	Other: Unauthorised train movement other than SPAD between Cachnov – Skutec stations	i	6. 1. 2021
9. 12. 2019	Trains collision with an obstacle: in Zamrsk station	i	16. 4. 2021
17. 2. 2020	Other: Tram trains collision in The City of Brno – Krizova street	ii	11. 2. 2021



<b>Date of occurrence</b>	<b>Title of the investigation (Occurrence type, location)</b>	<b>Legal basis</b>	<b>Completed (date)</b>
21. 2. 2020	Level-crossing accident: km 3,119 between Dobris – Mala Hradstice stations	i	14. 1. 2021
20. 3. 2020	Other: Collision of rolling stocks during shunting operation in Kolin station	i	15. 3. 2021
7. 5. 2020	Unauthorised movement of shunting operation other than SPAD with consequent collision with other rolling stock and derailment between Decin Prostedni Zleb - Decin vychod stations	i	28. 5. 2021
12. 6. 2020	Train derailment: between Jindris – Blazejov stations	i	1. 2. 2021
14. 6. 2020	Level-crossing accident: km 6,448 between Postupice – Benesov stations	i	28. 4. 2021
23. 6. 2020	Level-crossing accident: km 4,884 between Brandys nad Labem - Celakovice stations	i	16. 3. 2021
29. 6. 2020	Other: Unauthorised train movement other than SPAD in Svetla nad Sazavou station	i	22. 2. 2021
4. 7. 2020	Trains collision with an obstacle: in Prosenice station	i	30. 6. 2021
7. 7. 2020	Trains collision: between Pernink – Nove Hamry stations	i	18. 1. 2021
10. 7. 2020	Trains collision: in Praha Bechovice station	i	16. 12. 2021
14. 7. 2020	Trains collision: between Uvaly – Cesky Brod stations	i	25. 11. 2021
15. 7. 2020	Level-crossing accident: km 12,688 between Velke Opatovice - Sebetov stations	i	26. 3. 2021
15. 7. 2020	Train derailment: in Medlesice station	i	23. 6. 2021
21. 7. 2020	Level-crossing accident: km 14,025 between Cermna nad Orlici - Borohradek stations	i	30. 6. 2021
22. 7. 2020	Other: SPAD in Jablonne nad Orlici station	i	22. 3. 2021
22. 7. 2020	Train derailment: in Lazne Kynzvalt station	i	14. 7. 2021
28. 7. 2020	Other: Injury of the external worker by electric current from a contact line in Krizanov station	i	17. 6. 2021
11. 8. 2020	Trains collision: in Jihlava station	i	3. 9. 2021
13. 8. 2020	Train derailment: in Tisnov station	i	8. 2. 2021
18. 8. 2020	Trains collision with an obstacle with consequent Accident to person caused by RS in motion: between Brno Horni Herspice - Strelce stations	i	4. 5. 2021



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Legal basis</b>	<b>Completed</b> (date)
31. 8. 2020	Accident to person caused by RS in motion: between Balkova Lhota - Bozejovice stations	i	5. 2. 2021
2. 9. 2020	Level-crossing accident: km 3,127 between Moravske Branice - Ivancice stations	i	5. 3. 2021
9. 9. 2020	Trains collision: in Kdyne station	i	29. 11. 2021
18. 9. 2020	Level-crossing accident: km 100,674 in Kunovice station	i	1. 7. 2021
6. 10. 2020	Level-crossing accident: km 98,133 in Holkov station	i	17. 2. 2021
29. 10. 2020	Other: Tram trains collision in The City of Ostrava - in the area of the road crossing Opavska and Martinovska streets	ii	11. 3. 2021
19. 12. 2020	Train derailment: in Hluboka nad Vltavou Zamosti station	i	18. 10. 2021
15. 1. 2021	Other: Tram trains collision in The City of Ostrava - between Elektra – Karolina stops	ii	24. 6. 2021
5. 2. 2021	Trains collision: between Tlumacov – Otrokovice stations	i	7. 12. 2021
4. 3. 2021	Level-crossing accident: km 71,113 between Slatinany – Chrast u Chrudimi stations	i	14. 10. 2021
5. 5. 2021	Level-crossing accident: km 17,132 between Pisek - Cizova	i	29. 9. 2021
21. 5. 2021	Collision of shunting operation with standing roling stocks in Olomouc hlavni nadrazi station	i	18. 11. 2021

**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 2021

<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Legal basis</b>
15. 1. 2021	Other: Tram trains collision in The City of Ostrava - between Elektra – Karolina stops	ii
1. 2. 2021	Train derailment: in Kladno station	i
5. 2. 2021	Trains collision: between Tlumacov – Otrokovice stations	i
3. 3. 2021	Train derailment: in Namest nad Oslavou station	i
4. 3. 2021	Level-crossing accident: km 71,113 between Slatinany – Chrast u Chrudimi stations	i



4. 4. 2021	Trains collision: in Svetec station	i
5. 5. 2021	Trains collision with an obstacle: between Trebovice v Cechach – Ceska Trebova stations	i
5. 5. 2021	Level-crossing accident: km 17,132 between Pisek - Cizova	i
6. 5. 2021	Other: SPAD in Roztoky u Prahy station	i
10. 5. 2021	Other: SPAD in Praha Masarykovo nadrazi station	i
21. 5. 2021	Collision of shunting operation with standing roling stocks in Olomouc hlavni nadrazi station	i
5. 6. 2021	Trains collision with an obstacle: in Trinec station	i
14. 6. 2021	Train derailment: in Stramberk station	i
18. 6. 2021	Trains collision: Collision of shunting operation with standing passenger train in Cercany station	i
14. 7. 2021	Other: SPAD in Poricany station	i
15. 7. 2021	Train derailment: between Chvalkov – Vcelnicka stations	i
31. 7. 2021	Trains collision: in Nemcice nad Hanou station	i
4. 8. 2021	Train derailment: in Kralupy nad Vltavou station	i
4. 8. 2021	Trains collision: in Radonice station	i
19. 8. 2021	Train derailment: between Kralupy nad Vltavou – Nelahozeves stations	i
22. 9. 2021	Accident to person caused by RS in motion: in Bori les station	i
25. 10. 2021	Train derailment: in Plzen hlavni nadrazi, obvod Jizni Predmesti station	i
26. 10. 2021	Other: Unauthorised train movement other than SPAD in Lochovice station	i
28. 10. 2021	Level-crossing accident: km 18,495 between Sedlejev - Telc	i
31. 10. 2021	Trains collision: Collision of shunting operation with standing freight train between Cesky Tesin – Albrechtice u Ceskeho Tesina stations	i
9. 12. 2021	Level-crossing accident: km 97,346 between Jablonne nad Orlici – Letohrad stations	i
29. 12. 2021	Level-crossing accident: km 69,846 between Rozna – Bystrice nad Pernstejnem stations	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 2021

#### Safety Studies completed in 2021

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

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

#### Safety Studies commenced in 2021

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 2021

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 2021 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 2017–2021)

#### Rail investigations completed in 2017–2021

The table groups investigations by year of their completion.

Accidents investigated		2017	2018	2019	2020	2021	TOT
Serious accidents (Art 20.1)	Train collision	0	0	0	0	3	<b>3</b>
	Train collision with an obstacle	0	1	0	0	0	<b>1</b>
	Train derailment	0	0	0	0	0	<b>0</b>
	Level-crossing accident	0	0	0	0	2	<b>0</b>
	Accident to person caused by RS in motion	-	-	-	-	-	-
	Fire in rolling stock	-	-	-	-	-	-
	Involving dangerous goods	0	0	0	0	0	<b>0</b>
Accidents (Art 20.2)	Train collision	3	2	6	5	6	<b>22</b>
	Train collision with an obstacle	0	5	3	1	3	<b>12</b>
	Train derailment	5	5	8	8	7	<b>33</b>
	Level-crossing accident	7	23	10	14	9	<b>63</b>
	Accident to person caused by RS in motion	2	1	2	6	1	<b>12</b>
	Fire in rolling stock	0	0	0	0	0	<b>0</b>
	Involving dangerous goods	0	0	0	0	0	<b>0</b>
Incidents	3	9	9	7	3	<b>31</b>	
<b>TOTAL</b>		<b>20</b>	<b>46</b>	<b>38</b>	<b>41</b>	<b>34</b>	<b>179</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 2017 – 2021

Recommendations issued		Recommendation implementation status					
		Implemented		In progress		Not to be implemented	
Year	[No.]	[No.]	[%]	[No.]	[%]	[No.]	[%]
2017	16	6	37,5	3	18,75	7	43,75
2018	31	10	32	17	55	4	13
2019	19	11	58	7	37	1	5
2020	25	8	32	14	56	3	12
2021	21	8	38	11	52,5	2	9,5
<b>TOTAL</b>	<b>112</b>	<b>43</b>	<b>38,5</b>	<b>52</b>	<b>46,5</b>	<b>17</b>	<b>15</b>

#### Accidents with safety recommendations issued in 2017 – 2021

Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
14. 9. 2014	Train derailment: between Chotovice – Preysovo stations	implemented	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
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





<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
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	partially implemented	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	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	implemented	15. 11. 2017
30. 7. 2017	Level-crossing accident: km 25,744 between Hostomice pod Brdy - Lochovice stations	implemented	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	partially implemented	4. 7. 2018
12. 6. 2017	Other: Unauthorised train movement other than SPAD in Cesky Brod station	implemented	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	implemented	11. 9. 2018
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 Tremesna stations with consequent derailment	partially implemented	26. 10. 2018



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
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	implemented	16. 4. 2018
4. 1. 2018	Level-crossing accident: km 94,654 between Lochovice - Zdice stations	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 – Caslav 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	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	partially implemented	15. 10. 2018
27. 5. 2018	Other: SPAD of shunting operation in Praha Vrsovice seradovské nadraží station	not implemented	18. 12. 2018
4. 6. 2018	Level-crossing accident: km 10,504 between Stupno – Chrast u Plzně stations	implemented	28. 11. 2018
11. 7. 2018	Level-crossing accident: km 148,280 in Stankov station	partially implemented	28. 11. 2018
17. 3. 2017	Level-crossing accident: km 3,438 between Teplice Zámecká zahrada – Prosetice stations	implemented	21. 2. 2019



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
15. 12. 2017	Other: SPAD of shunting operation in Kolin station	implemented	17. 1. 2019
18. 1. 2018	Other: SPAD in Smrzovka station with consequent collision with an obstacle	in progress	5. 4. 2019
3. 2. 2018	Other: Unauthorised movement of shunting operation other than SPAD in Melnik station with consequent collision with standing locomotive	implemented	7. 6. 2019
26. 3. 2018	Accident to person caused by RS in motion: in Rudoltice v Cechach station	implemented	3. 4. 2019
29. 4. 2018	Train derailment: in Lhotka u Melnika station	implemented	5. 3. 2019
3. 5. 2018	Trains collision: between Kremze – Borsov nad Vltavou station with consequent derailment	implemented	12. 6. 2019
11. 6. 2018	Level-crossing accident: km 87,149 between Lochovice - Jince stations	partially implemented	28. 1. 2019
16. 7. 2018	Level-crossing accident: km 108,734 between Kamenny Ujezd u Ceskych Budejovic - Vcelna stations	implemented	11. 1. 2019
31. 7. 2018	Level-crossing accident: km 10,934 between Putim - Pisek stations	partially implemented	4. 4. 2019
16. 8. 2018	Level-crossing accident: km 20,786 in Cizova station	partially implemented	26. 3. 2019
7. 9. 2018	Train derailment: in Kolin station	implemented	25. 11. 2019
18. 9. 2018	Level-crossing accident: km 0,263 in Kralupy nad Vltavou predmesti station	implemented	4. 10. 2019
21. 9. 2018	Trains collision with an obstacle: between Holysov - Stankov stations	implemented	30. 9. 2019
23. 10. 2018	Other: SPAD in Studenec station	not implemented	28. 5. 2019
5. 11. 2018	Level-crossing accident: km 127,065 between Turnov - Sychrov stations	in progress	15. 5. 2019
18. 11. 2018	Train derailment: in Studenka station	in progress	30. 4. 2019
21. 11. 2018	Other: Derailment during shunting operation in Strakonice station	implemented	20. 5. 2019
13. 7. 2019	Level-crossing accident: km 8,544 between Lubna - Zavidov stations	partially implemented	27. 11. 2019
6. 1. 2018	Trains collision: in Ceska Lipa station with consequent derailment	implemented	3. 9. 2020
2. 12. 2018	Level-crossing accident: km 434,211 between Velke Brezno - Usti nad Labem Strekov stations	partially implemented	21. 2. 2020
23. 2. 2019	Other: Collision of rolling stocks during shunting operation in Ceske Budejovice station	implemented	7. 4. 2020



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
4. 3. 2019	Trains collision: between Ronov nad Doubravou – Zleby stations	implemented	17. 4. 2020
29. 3. 2019	Train derailment: in Kostelec u Hermanova Mestce station	not implemented	22. 4. 2020
29. 3. 2019	Other: Uncontrolled movement of rolling stock with consequent collision with an obstacle and derailment in Veseli nad Moravou station	partially implemented	9. 4. 2020
28. 6. 2019	Train derailment: in Vysoke Myto station	partially implemented	30. 1. 2020
16. 7. 2019	Level-crossing accident: km 108,978 in Horetice station	implemented	15. 2. 2020
21. 7. 2019	Other: Tram trains collision with an obstacle in The City of Praha – between Trojska – Nad Trojou stops	partially implemented	30. 7. 2020
24. 7. 2019	Trains collision with an obstacle with consequent derailment: between Nova Paka – Lazne Belohrad stations	partially implemented	8. 2. 2020
28. 7. 2019	Train derailment: between Chodova Plana – Marianske Lazne stations	partially implemented	29. 5. 2020
30. 7. 2019	Level-crossing accident: km 4,981 between branch Moravice – Hradec nad Moravici station	partially implemented	26. 2. 2020
20. 8. 2019	Other: Unauthorised movement of shunting operation other than SPAD with consequent collision with an obstacles, other rolling stock and derailment in Lovosice station	in progress	10. 8. 2020
21. 8. 2019	Level-crossing accident: km 16,382 between Ronov nad Doubravou – Tremosnice stations	in progress	13. 5. 2020
23. 8. 2019	Level-crossing accident: km 94,631 between Zakupy - Mimon stations	implemented	2. 10. 2020
25. 8. 2019	Other: Uncontrolled movement of tram train with consequent collision with an obstacle in The City of Olomouc – in U Domu stop	implemented	16. 4. 2020
6. 9. 2019	Level-crossing accident: km 169,968 in Praha Uhrineves station	in progress	28. 4. 2020
12. 9. 2019	Level-crossing accident: km 16,178 between Hnevceves - Vsestary stations	partially implemented	17. 2. 2020
1. 10. 2019	Level-crossing accident: km 0.645 in Hrusovany nad Jevisovkou Sanov station	not implemented	30. 4. 2020
20. 10. 2019	Level-crossing accident: km 182,324 between Blansko - Rajec Jestrebi stations	implemented	5. 5. 2020
27. 11. 2019	Other: SPAD in Praha Bechovice station	not implemented	5. 10. 2020
17. 1. 2020	Train derailment: in Krasny Jez station	implemented	15. 6. 2020



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
21. 2. 2020	Level-crossing accident: km 9,040 between Mestec Kralove – Chlumec nad Cidlinou stations	partially implemented	14. 8. 2020
27. 4. 2020	Level-crossing accident: km 1,856 between Hermanova Hut – Nyrany stations	partially implemented	14. 9. 2020
16. 5. 2020	Level-crossing accident: km 125,250 between Hnojnik – Dobra u Frydku Mistku stations	partially implemented	29. 9. 2020
22. 1. 2019	Level-crossing accident: km 5,446 between Vesec u Liberce – Jablonec nad Nisou stations	partially implemented	12. 2. 2021
1. 4. 2019	Other: Collision of the trolleybus with the tram in The City of Brno – in the area of the road crossing Masna, Krenova and Kozeluzska streets	implemented	10. 3. 2021
3. 11. 2019	Train derailment: in Praha Malesice station	implemented	17. 2. 2021
5. 11. 2019	Other: Unauthorised train movement other than SPAD between Cachnov – Skutec stations	not implemented	6. 1. 2021
9. 12. 2019	Trains collision with an obstacle: in Zamrsk station	implemented	16. 4. 2021
21. 2. 2020	Level-crossing accident: km 3,119 between Dobris – Mala Hradstice stations	partially implemented	14. 1. 2021
20. 3. 2020	Other: Collision of rolling stocks during shunting operation in Kolin station	implemented	15. 3. 2021
7. 5. 2020	Unauthorised movement of shunting operation other than SPAD with consequent collision with other rolling stock and derailment between Decin Prostedni Zleb - Decin vychod stations	in progress	28. 5. 2021
12. 6. 2020	Train derailment: between Jindris – Blazejov stations	partially implemented	1. 2. 2021
29. 6. 2020	Other: Unauthorised train movement other than SPAD in Svetla nad Sazavou station	partially implemented	22. 2. 2021
7. 7. 2020	Trains collision: between Pernink – Nove Hamry stations	implemented	18. 1. 2021
10. 7. 2020	Trains collision: in Praha Bechovice station	partially implemented	16. 12. 2021
14. 7. 2020	Trains collision: between Uvaly – Cesky Brod stations	partially implemented	25. 11. 2021
15. 7. 2020	Level-crossing accident: km 12,688 between Velke Opatovice - Sebetov stations	not implemented	26. 3. 2021
21. 7. 2020	Level-crossing accident: km 14,025 between Cermna nad Orlici - Borohradek stations	partially implemented	30. 6. 2021
22. 7. 2020	Train derailment: in Lazne Kynzvar station	implemented	14. 7. 2021



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
9. 9. 2020	Trains collision: in Kdyne station	partially implemented	29. 11. 2021
18. 9. 2020	Level-crossing accident: km 100,674 in Kunovice station	in progress	1. 7. 2021
19. 12. 2020	Train derailment: in Hluboka nad Vltavou Zamosti station	partially implemented	18. 10. 2021
15. 1. 2021	Other: Tram trains collision in The City of Ostrava - between Elektra – Karolina stops	implemented	24. 6. 2021
4. 3. 2021	Level-crossing accident: km 71,113 between Slatinany – Chrast u Chrudimi stations	implemented	14. 10. 2021

#### 4.2 Recommendations issued in 2021

<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
22. 1. 2019	Level-crossing accident: km 5,446 between Vesec u Liberce – Jablonec nad Nisou stations
<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>• due to the fact that there were repeated deadlocks of the road engine vehicles at level crossings, which were after a major repair or reconstruction approved by the NSA, without verifying compliance with all applicable standards, including ČSN 73 6380, to ensure smooth passage of road vehicles, resp. without the level crossing being correctly marked with appropriate traffic signs on the restriction of the operation of road vehicles on the road at the level crossing, to adopt of its own measure for implementation: <ul style="list-style-type: none"> <li>◦ modify safety management system that IM critic rate data about category and functional class (group) of the road which will get from manager of the road;</li> <li>◦ systematic detection of the category and functional class (group) of the road, including ensuring the documentation of the method of obtaining this information;</li> <li>◦ control that the road markings before level crossings correspond with category and functional class (group) of the road, and control on compliance with the measures laid down during joint inspections of level crossings.</li> </ul> </li> </ul>	
1. 4. 2019	Other: Collision of the trolleybus with the tram in The City of Brno – in the area of the road crossing Masna, Krenova and Kozeluzska streets
<p><b>Addressed</b> to the Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>• appeal to the RU of trolleybus track, so that as part of maintenance of rolling stocks replaces components (parts), which it has an affect to the safe operation of rail transport only with components (parts) in accordance with the relevant approved production documentation of the rolling stock, respectively of components with</li> </ul>	





<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
identical parameters, if these components (parts) are not produced.	
3. 11. 2019	Train derailment: in Praha Malesice station
<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>• to adopt own measure, which ensure at all IMs:<ul style="list-style-type: none"><li>◦ from the point of view of current and possible future development of the modern defectoscopic methods, all available defectoscopic methods by which it is possible to detect hidden defects in the area of the the point blade rail foot will be continuously exercised, resp. evaluated and the most effective method or methods will be applied into the system of the exercised controls;</li><li>◦ in case an adequate technological solution for the detection of hidden defects, resp. subsequent cracks in the point blade rail foot is absent, we recommend to the NSA adopt own measures that would prevent the vast majority of the point blade rails, which are long-term stressed by the cyclic high temperature changes and intensive rail traffic, from failure of their bearing cross-section, e.g. by introducing the cyclic point blade rail exchanges in terms based on the analysis;</li><li>◦ an extraordinary control of the condition and tightening the screws of short fishplates on the point blades of the switches will be exercised and permanent and regular controls of these will be ensured in the future as well.</li></ul></li></ul>	
5. 11. 2019	Other: Unauthorised train movement other than SPAD between Cachnov – Skutec stations
<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>• we recommend that the NSA appeal on the IMs that the maintenance work and repairs which take place on the line (especially with using the track mechanization) will be executed preferentially in time of the track occupancy, when the stricter rules relating especially to opening and closing of the track occupancy are in force, than executing them during the train break which was happened in case of this incident.</li></ul>	
9. 12. 2019	Trains collision with an obstacle: in Zamrsk station
<b>Addressed</b> to The Czech National Safety Authority (the NSA): <ul style="list-style-type: none"><li>• as part of its activities as the national safety authority, we recommend that the NSA adopt measures to ensure that the infrastructure manager Správa železnic, státní organizace, and other infrastructure managers on railways:<ul style="list-style-type: none"><li>◦ will exercise an extraordinary safety training focused on manipulation with the covers for electric heating of the switches and with covers of the hollow bearer of the switches. On this training, all employees who manipulate with these covers, will be demonstrably acquainted with all requirements for this manipulation;</li><li>◦ will file include this training into the content of the initial and regular safety</li></ul></li></ul>	



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	training of the relevant employees; <ul style="list-style-type: none"><li>○ will order an continuous control of the closure, securing and overall status of the above-mentioned covers of the switches as part of their own regular control activities;</li><li>○ will set the rules for the internal control activity of the professional administrations and operating units when working on device placed on the operating track (especially in domain of ensuring security and observance of the established work procedures), including clear requirements for these controls (e.g frequency, types and methods of these controls, their recording and registration, etc.).</li></ul>
21. 2. 2020	Level-crossing accident: km 3,119 between Dobris – Mala Hradice 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 add of the level crossing No. 5737 which is secure only by warning crosses to a level crossing system equipped with barriers, which with respect to local conditions and optical and manual barrier will reduce probability of the driver's entrance at the level crossing when the driver does not respond to limited visible rolling stock approaching to the level crossing.</li></ul> <p><b>Addressed</b> to Municipality of Dobříš, as the road administrative office of roads II. and III. class and publicly accessible special-purpose roads at the administrative territory of the municipality with extended powers Dobříš:</p> <ul style="list-style-type: none"><li>• reduction of greenery (branches of trees, bushes) or felling of trees at the edge of the forest on the inner side of the directional curve near the road No. II/114 in order to improve the driver's field of vision and visibility and to enable the early detection oncoming vehicles. This will be increase predictability situation for drivers turning to road leading to the level crossing and for driver of oncoming vehicle.</li></ul> <p><b>Addressed</b> to The Czech National Safety Authority in cooperation with the Municipality of Dobříš:</p> <ul style="list-style-type: none"><li>• to ensure the installation of the traffic safety equipment – traffic reflector mirror at the level crossing No. P5737 to improve the view for the driver turning from the road No. II/114 (from the village Stará Huť) before the the level crossing No. P5737;</li><li>• to ensure the safety of road vehicles by add the traffic sign P6 „Stop, give way!" in front of the level crossing No. P5737 from the direction of the Zdeněk Kulda company or by removing the advertising banner or reducing the speed at the purpose-built road from the company Zdeněk Kulda, which it reduces the required minimum view length for stopping (Dz) and also the minimum view length for the road vehicle (Lr).</li></ul>
20. 3. 2020	Other: Collision of rolling stocks during shunting operation in Kolin





<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	station
<b>Addressed</b> to the Czech National Safety Authority (the NSA): <ul style="list-style-type: none"><li>• as part of its activities as a national safety authority, we recommend the NSA adopt own measure which ensure that the IM Správa železnic, státní organizace, and the RU ČD Cargo, a. s., will adopt an appropriate measure focused on strict observance of the rules for railway and railway transport operating when arranging shunting and giving the permission to shunt;</li><li>• to execute the state supervision in matters of rail systems over activities of the IM Správa železnic, státní organizace, and the RU ČD Cargo, a. s., and other RUs, whether they act in accordance with the Act No. 266/1994 Coll., On Railways, as amended, with the imposed duties and powers, which means whether they fulfill the procedures for ensuring compliance with the rules for the the railway and railway transport operating by exercising the regular and effective inspections when shunting (especially when negotiating and giving permission to shunt).</li></ul>	
7. 5. 2020	Unauthorised movement of shunting operation other than SPAD with consequent collision with other rolling stock and derailment between Decin Prostredni Zleb - Decin vychod stations
<b>Addressed</b> to The Czech National Safety Authority (the NSA): <ul style="list-style-type: none"><li>• from its position as the national safety authority, we recommend that the NSA adopt measures to ensure that the infrastructure managers of the national and regional railways in the Czech Republic:<ul style="list-style-type: none"><li>◦ will strictly enforce with the existing rules for radio operation, especially in connection of the obligation of the RU to equip the rolling stock with radio stations which enable communication on the basic radio link, with emphasis on the GSM-R system;</li><li>◦ will supply these rules with a clear obligation to use primarily basic radio links for all communication with the train;</li><li>◦ will systematically exercise control activities focused on radio communication problematics, these controls should contain the software control of data entered by the RUs into the column „Contact for communication with the train" of the information system of the IM and at least, random control exercised by testing utility of the basic radio connection;</li></ul></li><li>• we recommend that the NSA adopt measures to ensure that the station interlocking plants which are controlled from the unified control place will be supplemented by the function which will be able to recognize the situation when the track section of the set train route is unexpectedly released by the rolling stock (train) without occupying the next section. The operating employee will be warned by the acoustic and strong optical alert on the railyard display in that situation. These station interlocking plants for which proposed recommendation will be feasible should be chosen on the basis of analysis;</li></ul>	



Date of occurrence	Title of the investigation, Safety recommendation
	<ul style="list-style-type: none"> <li>• we recommend that the NSA adopt measures to ensure that station interlocking plants which are controlled from the unified control place, does not allow the disappearance of the number representing the train without a targeted action made by the operating employee and without any alert warning this employee against the disappearance. These station interlocking plants for which proposed recommendation will be feasible should be chosen on the basis of analysis.</li> </ul>
12. 6. 2020	Train derailment: between Jindris – Blazejov stations
	<p><b>Addressed</b> to the Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>• to verify (by perform of the state supervision) performing regular maintenance of rolling stocks at the railway undertaking in accordance with the provisions of Act No. 266/1994 Coll. and the internal regulation of that railway undertaking;</li> <li>• as part of its activities as a national safety authority to ensure at the infrastructure manager:               <ul style="list-style-type: none"> <li>◦ to update, complete and interconnect of all internal regulations and technological procedures for measurement, evaluating and determining measures in case of detect of failure to comply of specified technical conditions of track operability which they are determined by binding construction and technical parameters;</li> <li>◦ the clear determine of the operating parameters and limit operating tolerances of the geometric position of the track and its use in operation and all outputs from the measurements of the geometric position of the track.</li> </ul> </li> </ul>
29. 6. 2020	Other: Unauthorised train movement other than SPAD in Svetla nad Sazavou station
	<p><b>Addressed</b> to the Czech National Safety Authority (the NSA):</p> <ul style="list-style-type: none"> <li>• to initiate an expert discussion with the IM which should resulted in analysis of possibilities how to modify the station interlocking plants or line safety and signalling plants (except the electronic type of the station interlocking plants or line safety and signalling plants working on the basis of a closed computer system) when there is a track possession; this modification will prevent the station dispatchers with the granted line approval onto the excluded line track from setting the permitting signals for moving of trains on the main signal devices. Then, the appropriately chosen solution should be implement into the relevant parts of the orders on possession and should be recorded into the relevant documentation of the IM. After restoring the station interlocking plant to working order when the track possession is closed, the record on verification of correct function should be also made into the relevant documentation of the IM;</li> <li>• to edit the obligation prescribed in the technological procedures of the IMs so that the obligation to protect the excluded site by the portable signal device „Stop” must be fulfilled immediately when the track possession starts, due to the fact that protection of the excluded site by the portable signal device „Stop” is an important</li> </ul>



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
safety element.	
7. 7. 2020	Trains collision: between Pernink – Nove Hamry stations
<b>Addressed</b> to the Czech National Safety Authority (the NSA): <ul style="list-style-type: none"><li>• as part of its activities as a national safety authority we recommend the NSA adopt own measures to ensure increase of security, with regard to the already applied elements of the signaling equipment on the line Karlovy Vary dolní nádraží station - Potůčky state border, in the section Nejdek - Potůčky state border as one of the proposed variants of the "Concept of increasing safety on lines with simplified traffic control" of the infrastructure manager Správa železnic, státní organizace, will ensure assessment and realization individual variants including the set schedule on selected lines with simplified traffic control prescribed and regulated by the SŽDC D3 according to "Concept of increasing safety on lines with simplified traffic control" and also on other lines in the railway network of the Czech Republic, on which the railway transport is currently organized with simplified traffic control. This should be done to increase the level of safety of the rolling stock.</li></ul>	
10. 7. 2020	Trains collision: in Praha Bechovice station
<b>Addressed</b> to the Czech National Safety Authority (the NSA): <ul style="list-style-type: none"><li>• to ensure at the infrastructure manager Správa železnic, státní organizace:<ul style="list-style-type: none"><li>◦ increased effectiveness and strengthening of the control activities aimed at consistent enforcement of the existing technological procedures for the shunting operation (with an emphasis on employee communication) until simplification of the technological procedures for the shunting operation will be implemented;</li><li>◦ preparation and implementation of overall simplification of the technological procedures for the shunting operation (with emphasis on communication) so that impracticality of these procedures will no longer lead to their non-fulfilment;</li><li>◦ in cooperation with the railway undertakings, they will consider using modern technologies, which would, in addition to current methods, enable to inform trains without personal contact only by using data communication (e. g. in a mobile application ensuring the acceptance of the order and the confirmation of acquaintance with it) which also offers the possibility of using its other benefits, such as notification of the relevant facts depending on the current position of the train or shunting between operating control points.</li></ul></li><li>• to ensure at all railway undertakings on the lines of the IM Správa železnic, státní organizace:<ul style="list-style-type: none"><li>◦ the obligation for the train driver to always have the appropriate forms for writing orders at the control position from which he leads the train will be established in the uniform technological procedures;</li></ul></li></ul>	



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	<ul style="list-style-type: none"><li>◦ increased effectiveness and strengthening of the control activities aimed at consistent enforcement of the existing technological procedures for the shunting operation (with an emphasis on employee communication).</li></ul>
14. 7. 2020	Trains collision: between Uvaly – Cesky Brod stations
	<p><b>Addressed</b> to the Czech Ministry of Transport:</p> <ul style="list-style-type: none"><li>• we recommend that the Ministry of Transport initiate a change of the provisions of the Decree No. 173/1995 Coll., the Traffic Rules of Railways, so that it will not be allowed to exceed a speed of 40 kph when running at sight on a wide line if there is not ensured a transmission of information on the main signals and warning signals to the leading tractive unit on the line (there is no light on the cab signalling of the leading tractive unit, or only a blue light illuminates).</li></ul> <p><b>Addressed</b> to the Czech National Safety Authority (the NSA):</p> <ul style="list-style-type: none"><li>• we recommend that the NSA ensure that the internal regulation of the IMs and RUs will determine the obligation not to exceed a speed of 40 kph when running at sight if there is not ensured a transmission of information on the main signals and warning signals to the leading tractive unit on the line (there is no light on the cab signalling of the leading tractive unit, or only a blue light illuminates) until the Decree No. 173/1995 Coll., the Traffic Rules of Railways, will be amended;</li><li>• we recommend that the NSA ensure that the RUs will be obligated to technically ensure all of their eligible rolling stocks (e. g. equipped with the AVV system) so that these rolling stocks will not be possible to exceed a speed of 40 kph when running at sight if there is not ensured a transmission of information on the main signals and warning signals to the leading tractive unit on the line (there is no light on the cab signalling of the leading tractive unit, or only a blue light illuminates);</li><li>• we recommend the NSA ensure that there will be imposed an obligation to the RUs to have individual technological times defined in their internal regulations, from which the minimum times for the turnovers of the passengers trains with an appropriate reserve will be determined.</li></ul>
15. 7. 2020	Level-crossing accident: km 12,688 between Velke Opatovice - Sebetov stations
	<p><b>Addressed</b> to the Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>• to take own measure to ensure equipment of the level crossing No. P6953 which is secure only by warning crosses to a level crossing system equipped with barriers which with regard to the exceeded the traffic moment and local conditions (crossing of 4 roads) from the point of view of optical and manual barrier will reduce probability of the driver's entrance at the level crossing when he does not respond to rolling stock approaching to the level crossing.</li></ul>
21. 7. 2020	Level-crossing accident: km 14,025 between Cermna nad Orlici - Borohradek stations



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	<p><b>Addressed</b> to the Czech National Safety Authority (the NSA):</p> <ul style="list-style-type: none"><li>in cooperation with the relevant IMs and the Ministry of Transport, we recommend that the NSA focus systematically, comprehensively and according to a binding and feasible plan on the issue of the level crossings, which are secured only by the warning crosses and at the same time the line speed on them is greater than 60 kph, and increase safety on them – cancel or replace them with the level crossings intended exclusively for walking, secure them with a flashing light level crossing warning system with barriers, etc., and regularly monitor and subsequently evaluate how this plan is being implemented and take the necessary related measures in connection with the results of evaluation.</li></ul> <p><b>Addressed</b> to the Czech Ministry of Transport in cooperation with the NSA:</p> <ul style="list-style-type: none"><li>to initiate a change and amendment of the "joint inspections of the level crossings" into the Act No. 266/1994 Coll., Decree No. 177/1995 Coll. and into other relevant legislation in the field of roads. Safety of the level crossing would be comprehensively evaluated in accordance with the clearly defined criteria, in terms of railway and road transport during the joint inspection of the level crossing at least with the participation of the IM and the owner (or an administrator) of the road (if appropriate with the participation of a representative of the Police of the Czech Republic);</li><li>to establish an obligation for this type of inspections so that the data obtained on the level crossing and the road will be detected, recorded, compared and confirmed, it would be responded to them and the results would be taken into account and the appropriate measures would be adopted, including control of their fulfillment, and the documentation would be kept so that it could be used for follow-up activities in the future;</li><li>to initiate and amend legislation to enable the IM or owners of the adjacent roads to use a road safety audit during the inspections of the level crossings. During the road safety audit, a comprehensive check focused on assessment of construction, technical and operational characteristics of the road and their impact on safety of road and railway transport would be executed. The amended legislation should ensure that the results will be taken into account and that appropriate measures will be adopted, including monitoring of their implementation.</li></ul> <p><b>Addressed</b> to the NSA in cooperation with the Municipal Authority of Kostelec nad Orlicí as road administrative authority in case of the second and third class roads and tertiary roads in the administrative area of the municipality with the extended powers Kostelec nad Orlicí:</p> <ul style="list-style-type: none"><li>in cooperation with the IM (Správa železnic, státní organizace) and the Municipal Authority of Borohrádek, to ensure safety of road and railway transport at the level crossing No. P4875, with the regard to the issue of the proximity of the road No. III/3172 and the level crossing, with the regard to the location of the road sign B 11 „Motor vehicles prohibited” behind the level crossing at the border of the adjacent forest and with the regard to the problems with the sighting distance for the slowest road vehicle Lp at this level crossing.</li></ul>



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	In the interest of railway safety, the Rail Safety Inspection Office considers it necessary to draw attention to the lack of documentation for the construction of the level crossing P4875. Considering the circumstances, it would be appropriate to make the documentation on the basis of a geodetic survey in which the actual data on the level crossing No. P4875 would be verified.
22. 7. 2020	Train derailment: in Lazne Kynzvalt station
	<p><b>Addressed</b> to the Czech National Safety Authority (the NSA):</p> <ul style="list-style-type: none"><li>• as part of increasing the level of security, we recommend that the NSA ensure that the RU with the IM will check the functionality of the basic radio link so that another safety element will be engaged (e. g. by the joint technological procedures will be determined or effective and coherent control activities will be executed) so that the risk of human error will be reduced;</li><li>• we recommend that the NSA initiate the improvement of mutual cooperation of the IMs and RUs in the risk management, especially in specific cases where there is mutual interaction at a common interface, with emphasis on eliminating human factor failure;</li><li>• as a part of its powers, we recommend that the NSA ensure that the adopted safety management system, in particular the method of the risk assessment and adopting of the risk management measures, will be implemented by the IM and RU so that their generally established procedures and methods would be applied more effectively not only to the specific operational situations but also in cases when, within modernization, optimalization or reconstruction of the infrastructure, there are technical, operational and organizational changes.</li></ul>
9. 9. 2020	Trains collision: in Kdyne station
	<p><b>Addressed</b> to the Czech National Safety Authority (the NSA):</p> <ul style="list-style-type: none"><li>• as part of its activities we recommend the NSA evaluate and eventually order the change of connection of control of the existing sanding equipment so that this equipment will be activated without necessity for its operation by the train driver always when the fast-acting braking is implemented (when the air pressure in the main pipe of the continuous train auto-brake falls below 3 bars) and when, at the same time, the operating of the rolling stock is activated by the relevant controls and the driving direction is selected, this should be made regardless of the train speed (the train speed is indicated as less than or equal to 0 during the skid of the braked wheelset). The recommended change should be done at the rail tractive vehicle of the 810 series and for all other eligible rolling stocks;</li><li>• as a part of its activities we also recommend the NSA adopt its own measures to ensure that the infrastructure manager Správa železnic, státní organizace, will change his technological procedures related to the maintenance of the station and line tracks so that the application of the spray for the control of undesirable vegetation will be accepted in a certain advance as before, but this advance will</li></ul>





<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	respond to the actual state of vegetation on the individual lines. The above mentioned change should lead to determine the latest limit of intervention to spray so that the tops of the heads of the rail strings should not overgrow by the undesirable vegetation. We recommend to use more effective control activities, which will involve not only employees directly in operation when executing the regular line patrols of the lines but also the senior employees of the infrastructure manager when executing the regular controls.
18. 9. 2020	Level-crossing accident: km 100,674 in Kunovice station
	<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 the fastest implementation change of the interlocking system of the level crossing No. P7961, mainly due to disruption of the sighting distance for the slowest road vehicle by a bridge structure, so that the level crossing was equipped by the flashing light level crossing warning system with barriers, in connection with previously issued safety recommendations.</li></ul>
19. 12. 2020	Train derailment: in Hluboka nad Vltavou Zamosti station
	<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>• to adopt own measure, which ensure at IM Správa železnic, státní organizace:<ul style="list-style-type: none"><li>◦ from the point of view of current and possible future development of the modern defectoscopic methods, all available defectoscopic methods and procedures by which it is possible to detect hidden defects in the area of the the point blade rail foot on the side adjacent to stock rail will be continuously exercised, resp. evaluated and the most effective method or methods and procedures will be applied into the system of the exercised controls.</li></ul></li></ul>
15. 1. 2021	Other: Tram trains collision in The City of Ostrava - between Elektra – Karolina stops
	<b>Addressed</b> to the Municipal Authority of Ostrava: <ul style="list-style-type: none"><li>• to adopt corresponding measure that the railway undertaking Dopravní podnik Ostrava, a. s., will not apply the provisions of § 17, section 2 of Government Decree No. 589/2006 Coll., which provides for a deviating regulation of working hours and rest of employees in transport, as amended, which can be used to shorten the continuous rest between two shifts of any employee below the limit of 11 hours determined by Act No. 262/2006 Coll., the Labor Code, as amended, respectively § 17 section 1 of Government Decree No. 589/2006 Coll., which provides for a deviating regulation of working hours and rest of employees in transport, as amended, in the full extent, but in the maximum possible reduction rate.</li></ul>
4. 3. 2021	Level-crossing accident: km 71,113 between Slatinany – Chrast u Chrudimi stations



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	<p><b>Addressed</b> to the Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>to take own measure to ensure addition of the level crossing No. P5332 which is secure by flashing light level crossing warning system to a level crossing system equipped with barriers which with regard to point of view of optical and manual barrier will reduce probability of the driver's entrance at the level crossing when he does not respond to light signalization in the warning state even because of near railway stop, where stopped only regional passenger trains.</li></ul>



## **ACCIDENT SUMMARY**

Grade:	serious accident.
Date and time:	14 <sup>th</sup> December 2018, 5:05 (4:05 GMT).
Occurrence type:	train derailment.
Description:	unsecured movement of the freight train No. 62228 to the calling-on signal to the blocked track with consequent derailment.
Type of train:	the freight train No. 62228.
Location:	Nymburk hlavní nádraží station, classification yard circuit, the entry signal device 2BL, km 1,380.
Parties:	Správa železniční dopravní cesty, státní organizace (IM); ČD Cargo, a. s. (RU of the freight train No. 62228).
Consequences:	0 fatality, 0 injury; total damage CZK 5 380 950,-.
Direct cause:	<ul style="list-style-type: none"><li>• entrance of the train to the calling-on signal along the train route wrongly set by the station dispatcher to the blocked track.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• failure to compliance of the technological procedures of the IM when preparing the train route, which it was caused by insufficient control of the correct position of the train route.</li></ul>
Root cause:	none.
Recommendation:	not issued.



## **ACCIDENT SUMMARY**

Grade: serious accident.

Date and time: 22<sup>nd</sup> January 2019, 7:47 (6:47 GMT).

Occurrence type: level crossing accident.

Description: collision of the regional passenger train No. 2652 with the lorry at the level crossing.

Type of train: the regional passenger train No. 2652.

Location: open line between Vesec u Liberce and Jablonec nad Nisou stations, level crossing No. P5508, km 5,446.

Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 2652);  
driver of the lorry (level crossing user).

Consequences: 0 fatality, 0 injury;  
total damage CZK 25 314 966,-

Direct cause:

- deadlock of the lorry at the level crossing.

Contributory factor: none.

Underlying cause:

- long-term incorrect classification of the category and functional class (group) of the road and failure to detect this defect when processing and commenting a project documentation or during control activities;
- longitudinal slope of the road at the level crossing and in adjacent sections without any restriction of the operation of road vehicles in violation of ČSN 73 6380 and failure to detect this defect during control activities or missing traffic signs limiting the operation of road vehicles and failure to finding out this defect when processing and commenting a project documentation or during control activities.

Root cause:

- repeat failure control activities of the category and functional class (group) of the road leading across the level crossing.

Recommendation:

Addressed to The Czech National Safety Authority (NSA):

- due to the fact that there were repeated deadlocks of the road engine vehicles at level crossings, which were after a major repair or reconstruction approved by the NSA, without verifying compliance with all applicable standards, including ČSN 73 6380, to ensure smooth passage of road vehicles, resp. without the level crossing being correctly marked with appropriate traffic signs on the restriction of the operation of road vehicles on the road at the level crossing, to adopt of its own measure for implementation:
  - 1) modify safety management system that IM critic rate data about category and functional class (group) of the road which will get from manager of the road;
  - 2) systematic detection of the category and functional class (group) of the road, including ensuring the documentation of the method of obtaining this information;

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3) control that the road markings before level crossings correspond with category and functional class (group) of the road, and control on compliance with the measures laid down during joint inspections of level crossings.



## **ACCIDENT SUMMARY**

- Grade: serious accident.
- Date and time: 1<sup>st</sup> April 2019, 13:42 (11:42 GMT).
- Occurrence type: rolling stocks collision.
- Description: collision of the trolleybus No. 33 with the oncoming tram (service ride).
- Type of train: trolleybus No. 33;  
tram (service ride).
- Location: Brno, road crossing Masná, Křenová and Koželužská streets.
- Parties: Dopravní podnik města Brna, a. s. (the IM and the RU of the trolleybus and the tram).
- Consequences: 40 injuries;  
total damage CZK 2 056 505,-
- Direct cause:
- sudden deflection of the trolleybus into the route of the tram moving in the opposite direction, due to immediate loss control of the front axle of the trolleybus because of a technical fault - break of part of the stud bolt in the attachment of the lower beam of the right front wheel.
- Contributory factor: none.
- Underlying cause:
- use of the rolling stock in a technical condition which did not correspond to the approved competence – application of the stud bolts to attach the front axle arms to the trolleybus frame, which were not correspond their parameters to the production documentation and it had a production defect.
- Root cause: none.
- Recommendation:
- Addressed to the Czech National Safety Authority (NSA):
- appeal to the RU of trolleybus track, so that as part of maintenance of rolling stocks replaces components (parts), which it has an affect to the safe operation of rail transport only with components (parts) in accordance with the relevant approved production documentation of the rolling stock, respectively of components with identical parameters, if these components (parts) are not produced.

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## **ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	17 <sup>th</sup> September 2019, 8:12 (6:12 GMT).
Occurrence type:	train derailment.
Description:	derailment of the tram No. 1.
Type of train:	the tram No. 1.
Location:	Prague, between Baterie and Ořechovka tram stops.
Parties:	Dopravní podnik hlavního města Prahy, akciová společnost (the IM and the RU of the tram).
Consequences:	0 fatality, 0 injury; total damage CZK 806 417,-
Direct cause:	<ul style="list-style-type: none"><li>• technical fault of the tram wheel – releasing of the wheel tyre.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• unsuitable (non-permanent) mixture of rubber segments of the spring of the compound tram wheel.</li></ul>
Root cause:	none.
Recommendation:	not issued.



## **ACCIDENT SUMMARY**

- Grade: a serious accident.
- Date and time: 3<sup>rd</sup> November 2019, 16:02 (15:02 GMT).
- Occurrence type: a train derailment.
- Description: the derailment of nine rolling stocks of the freight train No. 59701.
- Type of train: the freight train No. 59701.
- Location: Praha-Malešice station, the switch No. 10ab, km 3,936.
- Parties: Správa železniční dopravní cesty, státní organizace (the IM);  
ČD Cargo, a. s. (the RU of the freight train No. 59701).
- Consequences: 0 fatality, 0 injury;  
total damage CZK 11 210 750,-
- Direct cause:
- a sudden fracture of the point blade of the switch No. 10ab when the train No. 59701 was moving over the switch.
- Contributory factors:
- age of the point blade (at least 40 years) determining the length of cyclical stress by the high summer temperatures which resulted in total embrittlement of the material of the point blade of the switch;
  - long-term cyclical stress of the point blade by intensive railway traffic;
  - failure to detect fatigue cracks by the controls exercised in accordance with the procedures of the IM.
- Underlying cause:
- failure of the bearing cross-section of the point blade of the switch No. 10ab due to transcrystalline cleavage fracture which was running from the fatigue crack tip which was initiated by the corrosion pits in the area of the upper edge of the point blade rail foot on the side adjacent to the stock rail.
- Root cause: none.
- Recommendations:
- Addressed to The Czech National Safety Authority (NSA):
- to adopt own measure, which ensure at all IMs:
    - from the point of view of current and possible future development of the modern defectoscopic methods, all available defectoscopic methods by which it is possible to detect hidden defects in the area of the the point blade rail foot will be continuously exercised, resp. evaluated and the most effective method or methods will be applied into the system of the exercised controls;
    - in case an adequate technological solution for the detection of hidden defects, resp. subsequent cracks in the point blade rail foot is absent, we recommend to the NSA adopt own measures that would prevent the vast majority of the point blade rails, which are long-term stressed by the cyclic high temperature changes and intensive rail traffic, from failure of their bearing cross-section, e.g. by introducing the cyclic point blade rail exchanges in terms based on the analysis;

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- an extraordinary control of the condition and tightening the screws of short fishplates on the point blades of the switches will be exercised and permanent and regular controls of these will be ensured in the future as well.





## **ACCIDENT SUMMARY**

- Grade: an incident.
- Date and time: 5<sup>th</sup> November 2019, 14:16 (13:16 GMT).
- Occurrence type: an unsecured movement.
- Description: the unsecured movement of the regional passenger train No. 15356 into the open line section occupied by the working mechanisms (the shunting between operating control points).
- Type of train: the regional passenger train No. 15356;  
the shunting between operating control points.
- Location: Čachnov station, the entrance signal device S, km 37,240.
- Parties: Správa železniční dopravní cesty, státní organizace (the IM);  
České dráhy, a. s. (the RU of the regional passenger train No. 15356);  
ČD Cargo, a. s. (the RU of the shunting between operating control points).
- Consequences: 0 fatality, 0 injury;  
total damage CZK 0,-
- Direct cause:
- an entrance of the train No. 15356 into the open line section occupied by the working mechanisms based on the received safety information (the advice of train arrival), which was in contradiction with the objective fact.
- Contributory factor:
- confusing act of the employees of the IM and RU, who ensured the ride of the shunting between operating control points, consisting in failure to perform the obligations and in chaotic transfer of competencies for the individual functions in the process of operating the shunting between operating control points.
- Underlying causes:
- handing over the safety information (the advice of train arrival) that the whole set of the shunting between operating points reached the station and the track line is vacant by the line engineer of the IM to the dispatcher organizing and managing the railway traffic. The line engineer of the IM was not authorized to act in case of the shunting between operating points and he did not convince himself of the completeness of the returning set forming the shunting between operating control points;
  - non-connection of the set on return of the shunting between operating control points to Skuteč station;
  - failure to perform the prescribed obligations for the the shunting between operating control points by the train driver and the leader of the shunting crew of the RU, who ensured the ride of the whole set.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- we recommend that the NSA appeal on the IMs that the maintenance work and repairs which take place on the line (especially with using the track mechanization) will be executed preferentially in time of the track occupancy, when the stricter rules relating

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especially to opening and closing of the track occupancy are in force, than executing them during the train break which was happened in case of this incident.



## **ACCIDENT SUMMARY**

- Grade: a serious accident.
- Date and time: 9<sup>th</sup> December 2019, 9:03 (8:03 GMT).
- Occurrence type: the collision of the train with an obstacle.
- Description: the collision of the long distance passenger train No. 282 with the cover for electric heating of the switches.
- Type of train: the long distance passenger train No. 282.
- Location: Zámrsk station, the switch No. 5, km 279,139.
- Parties: SŽDC, s. o. (the IM);  
ČD, a. s. (the RU of the long distance passenger train No. 282).
- Consequences: 0 fatalities, 0 injuries;  
total damage CZK 8 849 034,-
- Direct cause:
- movement of the train No. 282 over the switch No. 5 with the open first cover for electric heating of the switch, which interfered with structure gauge.
- Contributory factor: none.
- Underlying cause:
- the first cover of electric heating of the switch No. 5 was not closed and secured in time so that the safe structure gauge for movement of the rolling stocks over the switch No. 5 was not preserved.
- Recommendations:
- Addressed to The Czech National Safety Authority (the NSA):
- as part of its activities as the national safety authority, we recommend that the NSA adopt measures to ensure that the infrastructure manager Správa železnic, státní organizace, and other infrastructure managers on railways:
    - will exercise an extraordinary safety training focused on manipulation with the covers for electric heating of the switches and with covers of the hollow bearer of the switches. On this training, all employees who manipulate with these covers, will be demonstrably acquainted with all requirements for this manipulation;
    - will file include this training into the content of the initial and regular safety training of the relevant employees;
    - will order an continuous control of the closure, securing and overall status of the above-mentioned covers of the switches as part of their own regular control activities;
    - will set the rules for the internal control activity of the professional administrations and operating units when working on device placed on the operating track (especially in domain of ensuring security and observance of the established work procedures), including clear requirements for these controls (e.g frequency, types and methods of these controls, their recording and registration, etc.).

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### **ACCIDENT SUMMARY**

Date and time:	17 <sup>th</sup> February 2020, 8:25 (7:25 GMT).
Occurrence type:	trains collision.
Description:	collision of the tram No. 6 with the tram No. 2 with consequent derailment.
Type of trains:	the tram No. 6; the tram No. 2.
Location:	Brno, the area in front of the crossroads of Křížová, Václavská and Křídlovická streets.
Parties:	Dopravní podnik města Brna, a. s. (the IM and the RU of the trams).
Consequences:	0 fatality, 14 injuries; total damage CZK 1 750 000,-
Direct cause:	<ul style="list-style-type: none"><li>• failure to stop of the tram No. 6 in front of the standing tram no. 2.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• incorrect evaluation or non-evaluation of mental or physical fatigue of the driver of the tram No. 6 and failure to take measures to ensure of safety.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• failure to drive the tram No. 6 according to conditions for running on sight in that way, which would ensure safe operation of railway transport during the traffic situation in the area in front of border of the crossroads.</li></ul>
Root cause:	none.
Recommendation:	not issued.



## **ACCIDENT SUMMARY**

Grade: serious accident.

Date and time: 21<sup>st</sup> February 2020, 11:41 (10:41 GMT).

Occurrence type: level crossing accident.

Description: collision of the regional passenger train No. 2012 with a lorry at the level crossing No. P5737 and consequent derailment.

Type of train: the regional passenger train No. 2012.

Location: open line between Dobříš and Malá Hraštice stations, the level crossing No. P5737, km 3,119.

Parties: Správa železnic, státní organizace (IM);  
České dráhy, a. s. (RU of the regional passenger train No. 2012);  
driver of the lorry (level crossing user).

Consequences: 0 fatality, 4 injuries;  
total damage CZK 12 552 081,-

Direct cause:

- an unauthorized entrance of the lorry at the level crossing No. P5737 at the time when the train No. 2012 was arriving and it was possible to see and hear its.

Contributory factor:

- limited view of the driver of the lorry to the railway track and to the train due to directional guidance and parallel position the road No. II/114 with the railway track and bad view to oncoming vehicles due to the growing vegetation at the edge of the forest;
- driver of the lorry was not allowed view to the train moving in the same direction in the immediate vicinity before the level crossing No. P5737 after start of turn.

Underlying cause:

- the lorry driver was not careful in front of the level crossing No. P5737 and he did not convince if he could safely proceed over the level crossing.

Root cause: none.

Recommendations:

Addressed to The Czech National Safety Authority (NSA):

- it is recommended to adopt own measure for add of the level crossing No. 5737 which is secure only by warning crosses to a level crossing system equipped with barriers, which with respect to local conditions and optical and manual barrier will reduce probability of the driver's entrance at the level crossing when the driver does not respond to limited visible rolling stock approaching to the level crossing.

Addressed to Municipality of Dobříš, as the road administrative office of roads II. and III. class and publicly accessible special-purpose roads at the administrative territory of the municipality with extended powers Dobříš:

- reduction of greenery (branches of trees, bushes) or felling of trees at the edge of the forest on the inner side of the directional curve near the road No. II/114 in order to improve the driver's field of vision and visibility and to enable the early detection



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oncoming vehicles. This will be increase predictability situation for drivers turning to road leading to the level crossing and for driver of oncoming vehicle.

Addressed to The Czech National Safety Authority in cooperation with the Municipality of Dobříš:

- to ensure the installation of the traffic safety equipment – traffic reflector mirror at the level crossing No. P5737 to improve the view for the driver turning from the road No. II/114 (from the village Stará Huť) before the the level crossing No. P5737;
- to ensure the safety of road vehicles by add the traffic sign P6 „Stop, give way!" in front of the level crossing No. P5737 from the direction of the Zdeněk Kulda company or by removing the advertising banner or reducing the speed at the purpose-built road from the company Zdeněk Kulda, which it reduces the required minimum view length for stopping (Dz) and also the minimum view length for the road vehicle (Lr).



## **ACCIDENT SUMMARY**

Date and time:	20 <sup>th</sup> March 2020, 23:04 (22:04 GMT).
Occurrence type:	a train collision.
Description:	the collision of the shunting operation with the standing rolling stocks.
Type of train:	the shunting operation.
Location:	Kolín station, the second district of the classification yard, the station track No. 38, km 297,586.
Parties:	Správa železnic, státní organizace (the IM); ČD Cargo, a. s. (the RU of the shunting operation).
Consequences:	0 fatality, 0 injury; total damage CZK 5 301 740,-
Causal factor:	<ul style="list-style-type: none"><li>• failure to adjust the speed of the shunting operation by the person driving the rolling stock when running at sight so that safety of the shunting was not ensured.</li></ul>
Contributing factors:	<ul style="list-style-type: none"><li>• the chain of defects:<ul style="list-style-type: none"><li>◦ at granting the permission for shunting: the permission for shunting granted by the station dispatcher at the Kolín station did not contain the minimum information for security of the shunting operation at time of its granting. The supervisor of the shunting crew who was authorized with negotiating of the shunting operation tolerated absence of these information and he did not require them from the station dispatcher;</li><li>◦ at informing the shunting operation driver: the shunting operation driver was not informed about the specific work progress, especially about the tracks on which shunting was allowed by the supervisor of the shunting crew. The shunting operation driver tolerated absence of these information and he did not require them from the supervisor of the shunting crew, so that the shunting operation driver was not able to find out that the shunting route was not set correctly;</li><li>◦ at setting and check of the correct position of the shunting route: the station dispatcher at the Kolín station did not set the shunting route to the place determined by the supervisor of the shunting crew;</li><li>◦ at movement of the shunting operation: the shunting operation was set in motion without the instruction given by the supervisor of the shunting crew, who did not take such a place where he was able to direct movement of the rolling stocks, and he did not have knowledge of the specific work procedure.</li></ul></li></ul>



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Systemic factor: none.

Recommendations:

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

- as part of its activities as a national safety authority, we recommend the NSA adopt own measure which ensure that the IM Správa železnic, státní organizace, and the RU ČD Cargo, a. s., will adopt an appropriate measure focused on strict observance of the rules for railway and railway transport operating when arranging shunting and giving the permission to shunt;
- to execute the state supervision in matters of rail systems over activities of the IM Správa železnic, státní organizace, and the RU ČD Cargo, a. s., and other RUs, whether they act in accordance with the Act No. 266/1994 Coll., On Railways, as amended, with the imposed duties and powers, which means whether they fulfil the procedures for ensuring compliance with the rules for the the railway and railway transport operating by exercising the regular and effective inspections when shunting (especially when negotiating and giving permission to shunt).



## **ACCIDENT SUMMARY**

- Grade: an incident.
- Date and time: 7<sup>th</sup> May 2020, 10:05 (8:05 GMT).
- Occurrence type: a train collision.
- Description: the unsecured movement of the train set of the service train No. 59787 into the open line section with its consequent collision with the locomotive train No. 73839 and derailment.
- Type of train: the locomotive train No. 73839;  
the service train No. 59787.
- Location: Děčín-Prostřední Žleb station, the signal device VL, km 458,612; a place of the train collision was between Děčín-Prostřední Žleb station and Děčín východ, the lower station circuit, km 458,077.
- Parties: Správa železnic, státní organizace (the IM);  
ČD Cargo, a. s. (the RU of the locomotive train No. 73839);  
JARO Česká Skalice, s. r. o. (the RU of the service train No. 59787).
- Consequences: 0 fatality, 0 injury;  
total damage CZK 544 638,-
- Direct cause:
- an unauthorized return of the train set of the service train No. 59787 from Děčín-Prostřední Žleb station into the open line section Děčín-Prostřední Žleb – Děčín východ, the lower station circuit.
- Contributory factor:
- the previous movements of the train driver of the train set of the service train No. 59787 into this section which were organized in violation of the regulations for the rail system operation; these movements contributed to creation of patterns of behavior of the train driver of the train set of the service train No. 59787.
- Underlying cause:
- failure to comply with the technological procedures of the IM by the train driver of the service train No. 59787.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (the NSA):
- from its position as the national safety authority, we recommend that the NSA adopt measures to ensure that the infrastructure managers of the national and regional railways in the Czech Republic:
    - will strictly enforce with the existing rules for radio operation, especially in connection of the obligation of the RU to equip the rolling stock with radio stations which enable communication on the basic radio link, with emphasis on the GSM-R system;
    - will supply these rules with a clear obligation to use primarily basic radio links for all communication with the train;
    - will systematically exercise control activities focused on radio communication problematics, these controls should contain the software control of data entered by the RUs into the column „Contact for communication with the train” of the information

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system of the IM and at least, random control exercised by testing utility of the basic radio connection;

- we recommend that the NSA adopt measures to ensure that the station interlocking plants which are controlled from the unified control place will be supplemented by the function which will be able to recognize the situation when the track section of the set train route is unexpectedly released by the rolling stock (train) without occupying the next section. The operating employee will be warned by the acoustic and strong optical alert on the railyard display in that situation. These station interlocking plants for which proposed recommendation will be feasible should be chosen on the basis of analysis;
- we recommend that the NSA adopt measures to ensure that station interlocking plants which are controlled from the unified control place, does not allow the disappearance of the number representing the train without a targeted action made by the operating employee and without any alert warning this employee against the disappearance. These station interlocking plants for which proposed recommendation will be feasible should be chosen on the basis of analysis.



## **ACCIDENT SUMMARY**

Date and time: 12<sup>th</sup> June 2020, 10:14 (8:14 GMT).  
Occurrence type: train derailment.  
Description: derailment of one rolling stock of the freight train No. 21357.  
Type of train: the freight train No. 21357.  
Location: open line between Jindřiš and Blažejov operating control points, km 7,847.  
Parties: Jindřichohradecké místní dráhy, a. s. (the IM and the RU of the freight train No. 21357).  
Consequences: 0 fatality, 0 injury;  
total damage CZK 10 918,-

Causal factor:

- movement of the train on the track in an unsatisfactory technical condition over a place with exceeded marginal operating tolerances in superelevation and collapse of the geometric position of the track.

Contributing factor:

- failure to adopt timely and appropriate measure to ensure the safety of guideway operating and guided transport operating – failure to comply the date and deferment elimination of the detected exceeding of marginal operating tolerances of geometric position of the track for organizational reasons.

Systemic factor:

- incorrect determination parameters for evaluation measurement and determination measures in case of failure to comply with the specified technical conditions of track operability which they are determined by obligatory construction-technical parameters.

Recommendations:

Addressed to the Czech National Safety Authority (NSA):

- to verify (by perform of the state supervision) performing regular maintenance of rolling stocks at the railway undertaking in accordance with the provisions of Act No. 266/1994 Coll. and the internal regulation of that railway undertaking;
- as part of its activities as a national safety authority to ensure at the infrastructure manager:
  - to update, complete and interconnect of all internal regulations and technological procedures for measurement, evaluating and determining measures in case of detect of failure to comply of specified technical conditions of track operability which they are determined by binding construction and technical parameters;
  - the clear determine of the operating parameters and limit operating tolerances of the geometric position of the track and its use in operation and all outputs from the measurements of the geometric position of the track.



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## **ACCIDENT SUMMARY**

Date and time:	14 <sup>th</sup> June 2020, 6:36 (4:36 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 19104 with a bus at the level crossing No. P6029 with consequent derailment.
Type of train:	the regional passenger train No. 19104.
Location:	open line between Postupice and Benešov u Prahy stations, the level crossing No. P6029, km 6,448.
Parties:	Správa železnic, státní organizace (the IM); České dráhy, a. s. (the RU of the regional passenger train No. 19104); driver of the bus (level crossing user).
Consequences:	11 injuries; total damage CZK 4 384 195,-
Causal factor:	<ul style="list-style-type: none"><li>• an unauthorized entrance of the bus at the level crossing No. P6029 at the time when the train No. 19104 was arriving, caused by behavior of the bus driver, who did not respect the light and acoustic warning of the level crossing safety equipment and did not make sure whether he could safely pass the level crossing.</li></ul>
Contributing factor:	none.
Systemic factor:	none.
Recommendation:	not issued.



## **ACCIDENT SUMMARY**

Date and time:	23 <sup>rd</sup> June 2020, 10:10 (8:10 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 19413 with a car at the level crossing.
Type of train:	the regional passenger train No. 19413.
Location:	open line between Brandýs nad Labem and Čelákovice stations, the level crossing No. P2739, km 4,884.
Parties:	Správa železnic, státní organizace (the IM); České dráhy, a. s. (RU of the regional passenger train No. 19413); driver of the car (level crossing user).
Consequences:	1 fatality, 1 injury; total damage CZK 134 459,-
Causal factor:	<ul style="list-style-type: none"><li>• an unauthorized entrance of the car at the level crossing No. P2739 at the time when the train No. 19413 was arriving, caused by behavior of the car driver, who did not respect the traffic sign „Stop, give a priority!” and did not stop the car at a place where she would have a proper view of the track and did not make sure whether he could safely pass the level crossing.</li></ul>
Contributing factor:	none.
Systemic factor:	none.
Recommendation:	not issued.



## **ACCIDENT SUMMARY**

- Date and time: 29<sup>th</sup> June 2020, 8:24 (6:24 GMT).
- Occurrence type: an unsecured movement.
- Description: the unsecured movement of the long distance passenger train No. 988 onto the excluded open line track No. 2.
- Type of train: the long distance passenger train No. 988.
- Location: Světlá nad Sázavou station, the switch No. 26, km 240,114.
- Parties: Správa železnic, státní organizace (the IM);  
České dráhy, a. s. (the RU of the long distance passenger train No. 988).
- Consequences: 0 fatality, 0 injury;  
total damage CZK 0,-
- Causal factor:
- the train route for the train No. 988 was set from Světlá nad Sázavou station towards to Sleština u Světlé station onto the excluded line track No. 2.
- Contributing factors:
- incorrect location of the mechanical tool that prevents from unwilling or erroneous pressing or pulling of the button up on the control desk of the station interlocking plant and that also disallows movement of the rolling stocks onto the excluded line track;
  - the attention of the station dispatcher of Světlá nad Sázavou station was distracted by the requirements of the train driver of the external RU who was in the station dispatcher room, so that the station dispatcher was not able to perform the transport operations which were connected with interlocking of train runnings at the same time;
  - an absence of the technical means in the technology of the station interlocking plant (relay-based type) which prevent the person operating the station interlocking plant from mistake (error).
- Contributory factor of continuation accidental action:
- failure to locate the portable signal device „Stop" which is used for site protection of the excluded line track at the station approach limit of the line track No. 2 of Světlá nad Sázavou station.
- Systemic factor: none.
- Recommendations:
- Addressed to the Czech National Safety Authority (the NSA):
- to initiate an expert discussion with the IM which should resulted in analysis of possibilities how to modify the station interlocking plants or line safety and signalling plants (except the electronic type of the station interlocking plants or line safety and signalling plants working on the basis of a closed computer system) when there is a track possession; this modification will prevent the station dispatchers with the granted line



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approval onto the excluded line track from setting the permitting signals for moving of trains on the main signal devices. Then, the appropriately chosen solution should be implemented into the relevant parts of the orders on possession and should be recorded into the relevant documentation of the IM. After restoring the station interlocking plant to working order when the track possession is closed, the record on verification of correct function should be also made into the relevant documentation of the IM;

- to edit the obligation prescribed in the technological procedures of the IMs so that the obligation to protect the excluded site by the portable signal device „Stop” must be fulfilled immediately when the track possession starts, due to the fact that protection of the excluded site by the portable signal device „Stop” is an important safety element.



**ACCIDENT SUMMARY**

Date and time:	4 <sup>th</sup> July 2020, 12:00 (10:00 GMT).
Occurrence type:	a train collision with an obstacle.
Description:	the collision of the long distance passenger train No. 1251 with the obstacle – the loose part (component) of the contact line.
Type of train:	the long distance passenger train No. 1251.
Location:	Prosenice station, a station approach limit of Přeřov direction, km 190,058.
Parties:	Správa řezelnic, státní organizace (the IM); Leo Express, s. r. o. (the RU of the long distance passenger train No 1251).
Consequences:	0 fatality, 0 injury; total damage CZK 941 025,-
Causal factors:	<ul style="list-style-type: none"><li>• technical defect of the contact line at the station approach limit of Prosenice station, caused by a hidden defect in the material of armature adapter of the contact line;</li><li>• failure to adopt measures necessary for the safe operation of the rolling stocks on the station track at the station approach limit of Prosenice station, which is a continuation of the track line No. 1 Přeřov – Prosenice and failure to give permission to move the train No. 1251 over the place with the inoperable contact line.</li></ul>
Contributing factor:	<ul style="list-style-type: none"><li>• failure to take into account possible more serious cause of the technical fault of the contact line of Přeřov/Dluhonice station approach limit of Prosenice station by the electrical dispatcher and failure to inform the person controlling the railway transport at Prosenice station about nonoperability of the track line which resulted in the permission to move the train No. 1251 over the place with the inoperable contact line.</li></ul>
Systemic factor:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Date and time: 7<sup>th</sup> July 2020, 15:08 (13:08 GMT).
- Occurrence type: a train collision.
- Description: an unauthorized departure of the regional passenger train No. 17113 from Pernink operating control point and its consequent collision with the regional passenger train No. 17110.
- Type of train: the regional passenger train No. 17113;  
the regional passenger train No. 17110.
- Location: the fouling point indicator of the switch No. 2Sv of Pernink operating control point, km 36,125; a place of the train collision – an open line between Pernink and Nové Hamry operating control points, km 35,582.
- Parties: Správa železnic, státní organizace (the IM);  
České dráhy, a. s. (the RU of the regional passenger trains No. 17113 and No. 17110).
- Consequences: 2 fatalities, 22 injuries;\*)  
total damage CZK 25 390 500,-\*\*)\*) The final number of the injured persons was not specified at the date of the the Accident and incident report drafting due to the unknown extent of injuries of the foreign passengers.  
\*\*) The amount of damage was not final at the date of the Accident and incident report drafting.
- Causal factor:
- failure to fulfill the announcement obligation by the train driver of the regional passenger train No. 17113 at Pernink operating control point, failure to wait for the arrival of the oncoming train, failure to request the permission for the train departure and the consequent unauthorized departure of the train No. 17113 to the block section of the line which was occupied by the train No. 17110.
- Contributing factor:
- the absence of technical (safety) equipment which would eliminate the possible failure of the human factor in the interest of safe operation of the railway and railway transport.
- Systemic factor: none.
- Recommendation:
- Addressed to the Czech National Safety Authority (the NSA):
- as part of its activities as a national safety authority we recommend the NSA adopt own measures to ensure increase of security, with regard to the already applied elements of the signaling equipment on the line Karlovy Vary dolní nádraží station - Potůčky state border, in the section Nejdek - Potůčky state border as one of the proposed variants of the "Concept of increasing safety on lines with simplified traffic control" of the infrastructure manager Správa železnic, státní organizace, will ensure assessment and realization individual variants including the set schedule on selected lines with simplified traffic control prescribed and regulated by the SŽDC D3 according to "Concept of increasing safety on lines with simplified traffic control" and also on other lines in the railway network of the Czech Republic, on which the railway transport is currently organized with simplified traffic control. This should be done to increase the level of safety of the rolling stock.



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## **ACCIDENT SUMMARY**

- Date and time: 10<sup>th</sup> July 2020, 17:39 (15:39 GMT).
- Occurrence type: a train collision.
- Description: the unauthorized movement of the train set of rolling stocks from the regional passenger train No. 8856 with its consequent collision with the long distance passenger train No. 989 and derailment.
- Type of train: the train set of rolling stocks from the regional passenger train No. 8856;  
the long distance passenger train No. 989.
- Location: Praha-Běchovice, the shunting signal device Se6, km 398,137; a place of the train collision – the switch No. 19, km 398,019.
- Parties: Správa železnic, státní organizace (the IM);  
České dráhy, a. s. (the RU of the train set of rolling stocks from the regional passenger train No. 8856 and the long distance passenger train No. 989).
- Consequences: 0 fatality, 0 injury;  
total damage CZK 20 117 368,-
- Causal factor:
- failure to respect the signal „Shunting forbidden” of the shunting signal device Se6 by the train driver of the train set of rolling stocks from the regional passenger train No. 8856 and the subsequent movement of the train set of rolling stocks from the regional passenger train No. 8856 up to the switch No. 19 which took place in the train route of the long distance passenger train No. 989.
- Contributing factor:
- failures in communication between persons involved in preparation of the evacuation of the passengers from the long distance passenger train No. 506 (specifically between the train driver of the regional passenger train No. 8856, the track dispatcher of the Traffic Control Center Prague and the officer in charge of the Fire Service of the IM).
- Systemic factor: none.
- Recommendation:
- Addressed to the Czech National Safety Authority (the NSA):
- to ensure at the infrastructure manager Správa železnic, státní organizace:
    - increased effectiveness and strengthening of the control activities aimed at consistent enforcement of the existing technological procedures for the shunting operation (with an emphasis on employee communication) until simplification of the technological procedures for the shunting operation will be implemented;
    - preparation and implementation of overall simplification of the technological procedures for the shunting operation (with emphasis on communication) so that impracticality of these procedures will no longer lead to their non-fulfilment;
    - in cooperation with the railway undertakings, they will consider using modern technologies, which would, in addition to current methods, enable to inform trains

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without personal contact only by using data communication (e. g. in a mobile application ensuring the acceptance of the order and the confirmation of acquaintance with it) which also offers the possibility of using its other benefits, such as notification of the relevant facts depending on the current position of the train or shunting between operating control points.

- to ensure at all railway undertakings on the lines of the IM Správa železnic, státní organizace:
  - the obligation for the train driver to always have the appropriate forms for writing orders at the control position from which he leads the train will be established in the uniform technological procedures;
  - increased effectiveness and strengthening of the control activities aimed at consistent enforcement of the existing technological procedures for the shunting operation (with an emphasis on employee communication).





## **ACCIDENT SUMMARY**

- Date and time: 14<sup>th</sup> July 2020, 21:35 (19:35 GMT).
- Occurrence type: a train collision.
- Description: the collision of the regional passenger train No. 9359 with the freight train No. 60051 and the consequent derailment of both trains.
- Type of train: the regional passenger train No. 9359;  
the freight train No. 60051.
- Location: an open line between Úvaly and Český Brod stations, the track line No. 1, km 378,501.
- Parties: Správa železnic, státní organizace (the IM);  
České dráhy, a. s. (the RU of the regional passenger train No. 9359);  
ČD Cargo, a. s. (the RU of the freight train No. 60051).
- Consequences: 1 fatality, 36 injuries;  
total damage CZK 45 345 983,-  
The amount of the damage was not final on the day of the final report processing.
- Causal factor:
- failure to stop the train No. 9359 in front of the end of the train No. 60051 during a previous sudden indisposition (a heart attack) of the train driver of the train No. 9359 which could suddenly affect his ability to perceive and act.
- Contributing factor:
- the train driver repeatedly cancelled the speed limit which had been automatically set by the CB mode of the AVV system in similar cases.
- Systemic factor: none.
- Recommendations:
- Addressed to the Czech Ministry of Transport:
- we recommend that the Ministry of Transport initiate a change of the provisions of the Decree No. 173/1995 Coll., the Traffic Rules of Railways, so that it will not be allowed to exceed a speed of 40 kph when running at sight on a wide line if there is not ensured a transmission of information on the main signals and warning signals to the leading tractive unit on the line (there is no light on the cab signalling of the leading tractive unit, or only a blue light illuminates).
- Addressed to the Czech National Safety Authority (the NSA):
- we recommend that the NSA ensure that the internal regulation of the IMs and RUs will determine the obligation not to exceed a speed of 40 kph when running at sight if there is not ensured a transmission of information on the main signals and warning signals to the leading tractive unit on the line (there is no light on the cab signalling of the leading tractive unit, or only a blue light illuminates) until the Decree No. 173/1995 Coll., the Traffic Rules of Railways, will be amended;
  - we recommend that the NSA ensure that the RUs will be obligated to technically ensure all of their eligible rolling stocks (e. g. equipped with the AVV system) so that these rolling stocks will not be possible to exceed a speed of 40 kph when running at sight if there is not ensured a transmission of information on the main signals and warning signals to the leading tractive unit on the line (there is no light on the cab signalling of the leading tractive unit, or only a blue light illuminates);

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- we recommend the NSA ensure that there will be imposed an obligation to the RUs to have individual technological times defined in their internal regulations, from which the minimum times for the turnovers of the passengers trains with an appropriate reserve will be determined.



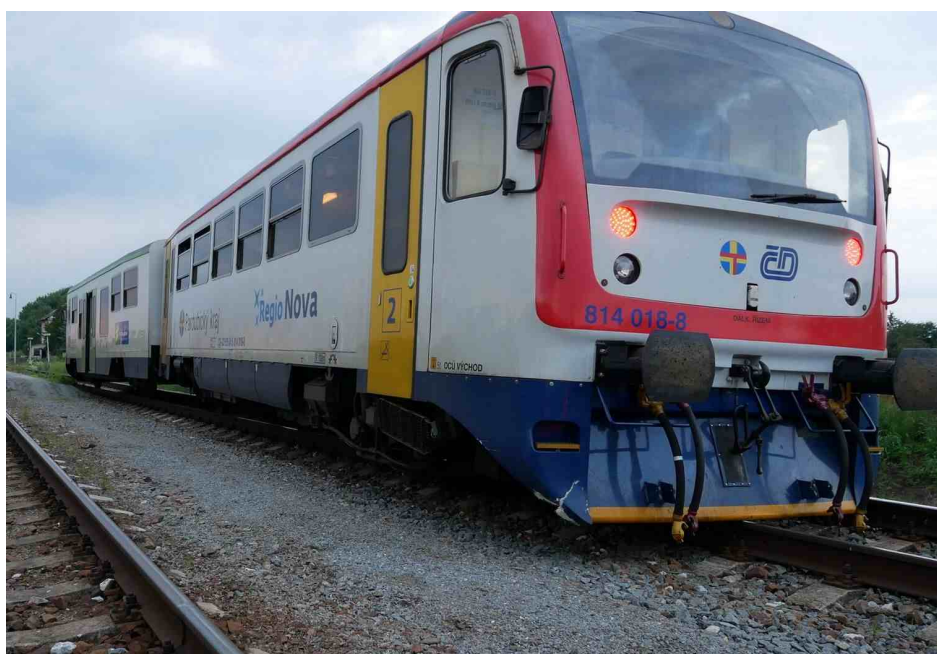
## **ACCIDENT SUMMARY**

- Date and time: 15<sup>th</sup> July 2020, 7:53 (5:53 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the regional passenger train No. 14704 with a lorry at the level crossing No. P6953 with consequent derailment.
- Type of train: the regional passenger train No. 14704.
- Location: open line between Šebetov and Velké Opatovice stations, the level crossing No. P6953, km 12,688.
- Parties: Správa železnic, státní organizace (the IM);  
České dráhy, a. s. (the RU of the regional passenger train No. 14704);  
driver of the lorry (level crossing user).
- Consequences: 2 injuries;  
total damage CZK 2 517 045,-
- Causal factor:
- an unauthorized entrance of the lorry at the level crossing No. P6953 at the time when the train No. 14704 was arriving, caused by behavior of the lorry driver, who did not make sure whether he could safely pass the level crossing.
- Contributing factor: none.
- Systemic factor: none.
- Recommendation:
- Addressed to the Czech National Safety Authority (NSA):
- to take own measure to ensure equipment of the level crossing No. P6953 which is secure only by warning crosses to a level crossing system equipped with barriers which with regard to the exceeded the traffic moment and local conditions (crossing of 4 roads) from the point of view of optical and manual barrier will reduce probability of the driver's entrance at the level crossing when he does not respond to rolling stock approaching to the level crossing.



## **ACCIDENT SUMMARY**

Date and time:	15 <sup>th</sup> July 2020, 19:15 (17:15 GMT).
Occurrence type:	train derailment.
Description:	derailment of the regional passenger train No. 5338 at the entrance to the Medlešice station.
Type of train:	the regional passenger train No. 5338.
Location:	Medlešice station, switch No. 1, km 83,494.
Parties:	Správa železnic, státní organizace (IM); České dráhy, a. s. (RU of the regional passenger train No. 5338).
Consequences:	0 fatality, 0 injury; total damage CZK 587 000,-
Causal factor:	<ul style="list-style-type: none"><li>• unauthorized change of position of the switch No. 1 at the time, when the rolling stocks of the train No. 5338 were on the switch, which was preceded by a failure to detect whether the train No. 5338 has arrived whole at the designated track and premature cancellation of train route for this train.</li></ul>
Contributing factor:	<ul style="list-style-type: none"><li>• time pressure which was not properly eliminated by the station dispatcher due to insufficient vigilance and awareness of risk.</li></ul>
Systemic factor:	none.
Recommendation:	not issued.



## **ACCIDENT SUMMARY**

Date and time: 21<sup>st</sup> July 2020, 16:43 (14:43 GMT).  
Occurrence type: a level crossing accident.  
Description: the collision of the regional passenger train No. 1797 with the lorry at the level crossing No. P4875.  
Type of train: the regional passenger train No. 1797.  
Location: an open line between Čermná nad Orlicí a Borohrádek stations, the level crossing No. P4875, km 14,025.  
Parties: Správa železnic, státní organizace (the IM);  
České dráhy, a. s. (the RU of the regional passenger train No. 1797);  
the lorry driver (a level crossing user).  
Consequences: 2 fatalities;  
total damage CZK 583 000 Kč,- \*)

\*)The amount of the damage was not final on the day of the final report processing.

### **Causal factor:**

- an unauthorized entrance of the lorry at the level crossing No. P4875 at the time when the train No. 1797 was arriving, caused by behavior of the lorry driver, who did not respect the traffic sign „Stop, give a priority!” and did not stop the car at a place where she would have a proper view of the track and did not make sure whether she could safely pass the level crossing.

Contributing factor: none.

Systemic factor: none.

Recommendation:

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

- in cooperation with the relevant IMs and the Ministry of Transport, we recommend that the NSA focus systematically, comprehensively and according to a binding and feasible plan on the issue of the level crossings, which are secured only by the warning crosses and at the same time the line speed on them is greater than 60 kph, and increase safety on them – cancel or replace them with the level crossings intended exclusively for walking, secure them with a flashing light level crossing warning system with barriers, etc., and regularly monitor and subsequently evaluate how this plan is being implemented and take the necessary related measures in connection with the results of evaluation.

Addressed to the Czech Ministry of Transport in cooperation with the NSA:

- to initiate a change and amendment of the "joint inspections of the level crossings" into the Act No. 266/1994 Coll., Decree No. 177/1995 Coll. and into other relevant legislation in the field of roads. Safety of the level crossing would be comprehensively evaluated in accordance with the clearly defined criteria, in terms of railway and road transport during the joint inspection of the level crossing at least with the participation of the IM and the owner (or an administrator) of the road (if appropriate with the participation of a representative of the Police of the Czech Republic);



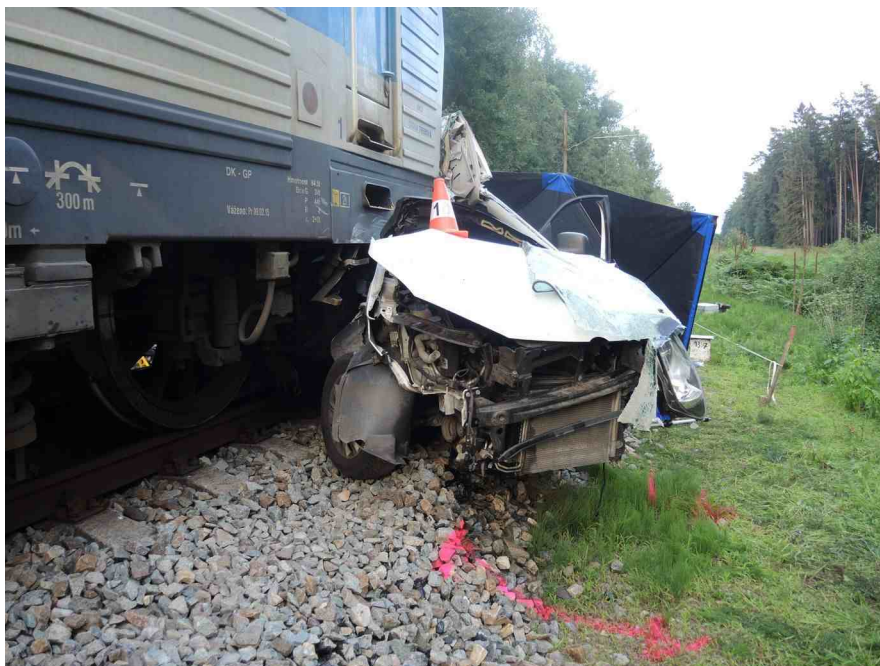
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- to establish an obligation for this type of inspections so that the data obtained on the level crossing and the road will be detected, recorded, compared and confirmed, it would be responded to them and the results would be taken into account and the appropriate measures would be adopted, including control of their fulfillment, and the documentation would be kept so that it could be used for follow-up activities in the future;
- to initiate and amend legislation to enable the IM or owners of the adjacent roads to use a road safety audit during the inspections of the level crossings. During the road safety audit, a comprehensive check focused on assessment of construction, technical and operational characteristics of the road and their impact on safety of road and railway transport would be executed. The amended legislation should ensure that the results will be taken into account and that appropriate measures will be adopted, including monitoring of their implementation.

Addressed to the NSA in cooperation with the Municipal Authority of Kostelec nad Orlicí as road administrative authority in case of the second and third class roads and tertiary roads in the administrative area of the municipality with the extended powers Kostelec nad Orlicí:

- in cooperation with the IM (Správa železnic, státní organizace) and the Municipal Authority of Borohrádek, to ensure safety of road and railway transport at the level crossing No. P4875, with the regard to the issue of the proximity of the road No. III/3172 and the level crossing, with the regard to the location of the road sign B 11 „Motor vehicles prohibited” behind the level crossing at the border of the adjacent forest and with the regard to the problems with the sighting distance for the slowest road vehicle Lp at this level crossing.

In the interest of railway safety, the Rail Safety Inspection Office considers it necessary to draw attention to the lack of documentation for the construction of the level crossing P4875. Considering the circumstances, it would be appropriate to make the documentation on the basis of a geodetic survey in which the actual data on the level crossing No. P4875 would be verified.



## **ACCIDENT SUMMARY**

Date and time:	22 <sup>nd</sup> July 2020, 7:12 (5:12 GMT).
Occurrence type:	unauthorized movement.
Description:	unauthorized movement of the regional passenger train No. 7152 behind the route signal device Lc1 and its entry into the train route for the entrance regional passenger train No. 7151.
Type of train:	the regional passenger train No. 7152; the regional passenger train No. 7151.
Location:	Jablonné nad Orlicí station, the route signal device Lc1, km 99,041.
Parties:	Správa železnic, státní organizace (the IM); Leo Express Tenders, s. r. o. (the RU of the regional passenger trains No. 7152 and 7151).
Consequences:	0 fatality, 0 injury; total damage CZK 0.-
Causal factor:	<ul style="list-style-type: none"><li>• failure to respect the signal „Stop” of the main (route) signal device Lc1 at Jablonné nad Orlicí station by the train driver of the regional passenger train No. 7152.</li></ul>
Contributing 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>
Systemic factor:	none.
Recommendation:	not issued.





## **ACCIDENT SUMMARY**

- Date and time: 22<sup>nd</sup> July 2020, 14:52 (12:52 GMT).
- Occurrence type: a train derailment.
- Description: the unauthorized movement of the regional passenger train No. 7004 with its consequent derailment.
- Type of train: the regional passenger train No. 7004.
- Location: Lázně Kynžvart station, the departure signal device S1, km 431,808; a place of the train derailment was at the switch No. 2, km 431,688.
- Parties: Správa železnic, státní organizace (the IM);  
České dráhy, a. s. (the RU of the regional passenger train No. 7004).
- Consequences: 3 injuries;  
total damage CZK 4 580 906,50,-
- Causal factor:
- the unauthorized movement of the regional passenger train No. 7004 which was not dispatched another way than by the signal of the main signal device and consequent failure to respect the signal „Stop” given by the main departure signal device S1 at Lázně Kynžvart.
- Contributing factors:
- a failure to register a valid functional number of the train No. 7004 into the digital radio network GSM-R and failure to perform a functional test of the basic connection by checking the validity of the registered data;
  - the absence of a mobile train automatic warning system enabling the transmission of signals of the main signal devices and warning signals to the driver's footplate of the locomotive.
- Systemic factor: none.
- Recommendation:
- Addressed to the Czech National Safety Authority (the NSA):
- as part of increasing the level of security, we recommend that the NSA ensure that the RU with the IM will check the functionality of the basic radio link so that another safety element will be engaged (e. g. by the joint technological procedures will be determined or effective and coherent control activities will be executed) so that the risk of human error will be reduced;
  - we recommend that the NSA initiate the improvement of mutual cooperation of the IMs and RUs in the risk management, especially in specific cases where there is mutual interaction at a common interface, with emphasis on eliminating human factor failure;
  - as a part of its powers, we recommend that the NSA ensure that the adopted safety management system, in particular the method of the risk assessment and adopting of the risk management measures, will be implemented by the IM and RU so that their generally established procedures and methods would be applied more effectively not only to the specific operational situations but also in cases when, within modernization, optimization or reconstruction of the infrastructure, there are technical, operational and organizational changes.

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## **ACCIDENT SUMMARY**

Date and time:	28 <sup>th</sup> July 2020, 11:27 (9:27 GMT).
Occurrence type:	an accident to a person caused by a rolling stock in motion.
Description:	injury of the external worker by electric current from a contact line.
Type of train:	the shunting operation.
Location:	Křižanov station, area of the switch No. 2, km 61,175.
Parties:	Správa železnic, státní organizace (IM); Elektrizace železnic Praha, a. s. (RU of the shunting operation); the external worker (employee of the company ELTRA s. r. o.).
Consequences:	1 injury; total damage CZK 0,-
Causal factor:	<ul style="list-style-type: none"><li>failure to comply the conditions for ensuring safety and health protection at work at the time of presence of the external worker on the roof platform of the shunting operation during shunting under the voltage-operated part of the contact line.</li></ul>
Contributing factor:	none.
Systemic factor:	none.
Recommendation:	not issued.



**ACCIDENT SUMMARY**

Date and time:	11 <sup>th</sup> August 2020, 5:52 (3:52 GMT).
Occurrence type:	train collision.
Description:	unauthorized movement of the freight train No. 52184 behind the main departure signal device S1, consequent collision with standing rolling stock and derailment.
Type of train:	freight train No. 52184; standing rolling stocks.
Location:	Jihlava station, main departure signal device S1, station track No. 1, km 198,675; place of the collision was at station track No. 1a, km 198,489.
Parties:	Správa železnic, státní organizace (IM); CityRail, a. s. (RU of the freight train No. 52184); ČD Cargo, a. s. (owner of the standing rolling stocks).
Consequences:	0 fatality, 0 injury; total damage CZK 8 616 661,-
Causal factor:	<ul style="list-style-type: none"><li>• failure to open of the coupling valves of continuous automatic pressure brake between the locomotive and the first towed rolling stock;</li><li>• failure to perform a simple brake test of the train at Havlíčkův Brod station.</li></ul>
Contributing factor:	none.
Systemic factor:	none.
Recommendation:	not issued.



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## **ACCIDENT SUMMARY**

Date and time:	13 <sup>th</sup> August 2020, 9:14 (7:14 GMT).
Occurrence type:	a train derailment.
Description:	the derailment of two rolling stocks of the long distance passenger train No. 975.
Type of train:	the long distance passenger train No. 975.
Location:	Tišnov station, the switch No. 33, km 30,515.
Parties:	Správa železnic, státní organizace (the IM); České dráhy, a. s. (the RU of the long distance passenger train No. 975).
Consequences:	0 fatality, 0 injury; total damage CZK 5 870 984,-
Causal factor:	<ul style="list-style-type: none"><li>• an unauthorized operation of elements of the station interlocking plant of Tišnov station resulting in the adjustment of the switch No. 33 when it was occupied by the moving rolling stocks of the train No. 975, it was caused by an unintentional mistake (error) of the professionally qualified person operating the equipment.</li></ul>
Contributing factor:	<ul style="list-style-type: none"><li>• an absence of the technical means of security which prevent the adjustment of the switch No. 33 under the moving rolling stocks due to an unintentional mistake (error) of the professionally qualified person operating the equipment at the time of the closure of the track circuits of the station interlocking plant of Tišnov station.</li></ul>
Systemic factor:	none
Recommendation:	not issued.



Annex





## **ACCIDENT SUMMARY**

Date and time:	18 <sup>th</sup> August 2020, 23:06 (21:06 GMT).
Occurrence type:	a collision with an obstacle.
Description:	collision of the regional passenger train No. 11542 with the working machine with consequent collision with the external worker.
Type of train:	the regional passenger train No. 11542.
Location:	an open line between Brno-Horní Heršpice and Střelice stations, track line No. 2, km 147,745.
Parties:	Správa železnic, státní organizace (IM); České dráhy, a. s. (RU of the regional passenger train No. 11542); the external worker.
Consequences:	1 fatality; total damage CZK 1 791 500,-
Causal factor:	<ul style="list-style-type: none"><li>• breach of structure gauge of operated track by control panel of the working machine.</li></ul>
Contributing factor:	<ul style="list-style-type: none"><li>• behavior of the external worker affected by an addictive substance at the time of the work shift during which accident occurred.</li></ul>
Systemic factor:	none.
Recommendation:	not issued.



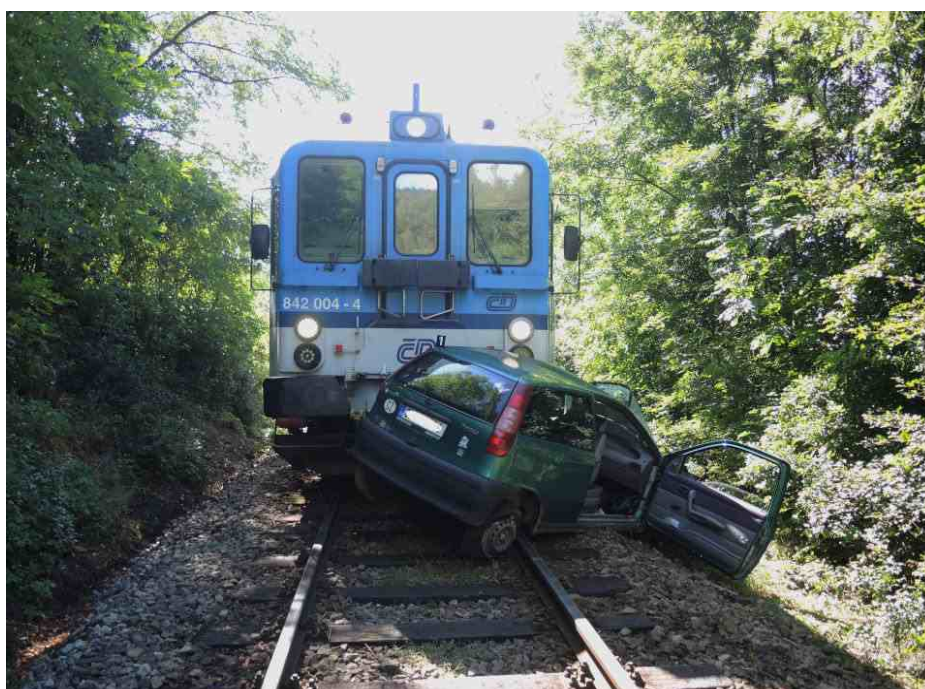
## **ACCIDENT SUMMARY**

Date and time:	31 <sup>st</sup> August 2020, 11:19 (9:19 GMT).
Occurrence type:	an accident to a person caused by a rolling stock in motion.
Description:	collision of the regional passenger train No. 1716 with the external worker in the open line track.
Type of train:	the regional passenger train No. 1716.
Location:	open line track between Balkova Lhota and Božejovice stations, km 12,462.
Parties:	Správa železnic, státní organizace (the IM); České dráhy, a. s. (the RU of the regional passenger train No. 1716); the external worker.
Consequences:	1 fatality; total damage CZK 0,-
Causal factor:	<ul style="list-style-type: none"><li>• unauthorized entrance of the external worker into the structure gauge of the open line track while the train No. 1716 was moving.</li></ul>
Contributing factor:	none.
Systemic factor:	none.
Recommendation:	not issued.



## **ACCIDENT SUMMARY**

Date and time:	2 <sup>nd</sup> September 2020, 8:08 (6:08 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 11414 with a car at the level crossing No. P3949.
Type of train:	the regional passenger train No. 11414.
Location:	open line between Moravské Bránice and Ivančice stations, the level crossing No. P3949, km 3,127.
Parties:	Správa železnic, státní organizace (the IM); České dráhy, a. s. (the RU of the regional passenger train No. 11414); driver of the car (level crossing user).
Consequences:	1 fatality; total damage CZK 68 936,-
Causal factor:	<ul style="list-style-type: none"><li>• an unauthorized entrance of the car at the level crossing No. P3949 at the time when the train No. 11414 was arriving, caused by behavior of the car driver, who did not respect the traffic sign „Stop, give a priority!” and did not stop the car at a place where she would have a proper view of the track and did not make sure whether she could safely pass the level crossing.</li></ul>
Contributing factor:	none.
Systemic factor:	none.
Recommendation:	not issued.



## **ACCIDENT SUMMARY**

Date and time: 9<sup>th</sup> September 2020, 7:08 (5:08 GMT).  
Occurrence type: a train collision.  
Description: the collision of the regional passenger train No. 17544 with the oncoming service train No. 55025.  
Type of train: the regional passenger train No. 17544;  
the service train No. 55025.  
Location: Kdyně station, the switch No. 5, km 19,439.  
Parties: Správa železnic, státní organizace (the IM);  
České dráhy, a. s. (the RU of the regional passenger train No. 17544);  
ČD Cargo, a. s. (the RU of the service train No. 55025).  
Consequences: 0 fatalities, 20 injuries;  
total damage CZK 5 528 750,-

Causal factor:

- failure to stop the regional passenger train No. 17544 in front of the signal „Stop” of the main (departure) signal device L2 at Kdyně station, due to incorrect operation of the braking device and failure to use the sanding equipment by the train driver of the train No. 17544, and also failure to ensure re-rolling of the wheels after the previous occurrence of skid of the wheels of the locomotive.

Contributing factors:

- reduction of the coefficient of adhesion friction which is necessary for the start or stop of the trains on the station track No. 2 at Kdyně station; this situation was caused by lodgment of rutted vegetation residues on the tops of the heads of both rail strings, because vegetation was not treated in time, and also by the interaction of atmospheric humidity at the time of the serious accident;
- exceeding the speed limit by 20 kph due to failure to respect the signal „Speed 40 kph” and also the repeating signal – „Warning” signal – of the main (entrance) signal device L of Kdyně station by the train driver of the train No. 17544.

Systemic factor: none.

Recommendation:

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

- as part of its activities we recommend the NSA evaluate and eventually order the change of connection of control of the existing sanding equipment so that this equipment will be activated without necessity for its operation by the train driver always when the fast-acting braking is implemented (when the air pressure in the main pipe of the continuous train auto-brake falls below 3 bars) and when, at the same time, the operating of the rolling



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stock is activated by the relevant controls and the driving direction is selected, this should be made regardless of the train speed (the train speed is indicated as less than or equal to 0 during the skid of the braked wheelset). The recommended change should be done at the rail tractive vehicle of the 810 series and for all other eligible rolling stocks;

- as a part of its activities we also recommend the NSA adopt its own measures to ensure that the infrastructure manager Správa železnic, státní organizace, will change his technological procedures related to the maintenance of the station and line tracks so that the application of the spray for the control of undesirable vegetation will be accepted in a certain advance as before, but this advance will respond to the actual state of vegetation on the individual lines. The above mentioned change should lead to determine the latest limit of intervention to spray so that the tops of the heads of the rail strings should not overgrow by the undesirable vegetation. We recommend to use more effective control activities, which will involve not only employees directly in operation when executing the regular line patrols of the lines but also the senior employees of the infrastructure manager when executing the regular controls.



## **ACCIDENT SUMMARY**

- Date and time: 18<sup>th</sup> September 2020, 13:17 (11:17 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the regional passenger train No. 1765 with the combination of vehicles (tractor with tank trailer) with consequent derailment.
- Type of train: the regional passenger train No. 1765.
- Location: Kunovice station, the level crossing No. P7961, km 100,674.
- Parties: Správa železnic, státní organizace (the IM);  
České dráhy, a. s. (the RU of the regional passenger train No. 1765);  
driver of the tractor (level crossing user).
- Consequences: 5 injuries;  
total damage CZK 1 069 599,-
- Causal factor:
- an unauthorized entrance of the combination of vehicles (tractor with tank trailer) at the level crossing No. P7961 at the time when the train No. 1765 was arriving, caused by behavior of the tractor driver, who although he respected the traffic sign „Stop, give a priority!” and stopped the tractor at a place where he had a proper view to the track, he did not react carefully enough and he did not make sure whether he could safely pass the level crossing.
- Contributing factor: none.
- Systemic factor: none.
- Recommendation:
- Addressed to the Czech National Safety Authority (NSA):
- it is recommended to adopt own measure for the fastest implementation change of the interlocking system of the level crossing No. P7961, mainly due to disruption of the sighting distance for the slowest road vehicle by a bridge structure, so that the level crossing was equipped by the flashing light level crossing warning system with barriers, in connection with previously issued safety recommendations.



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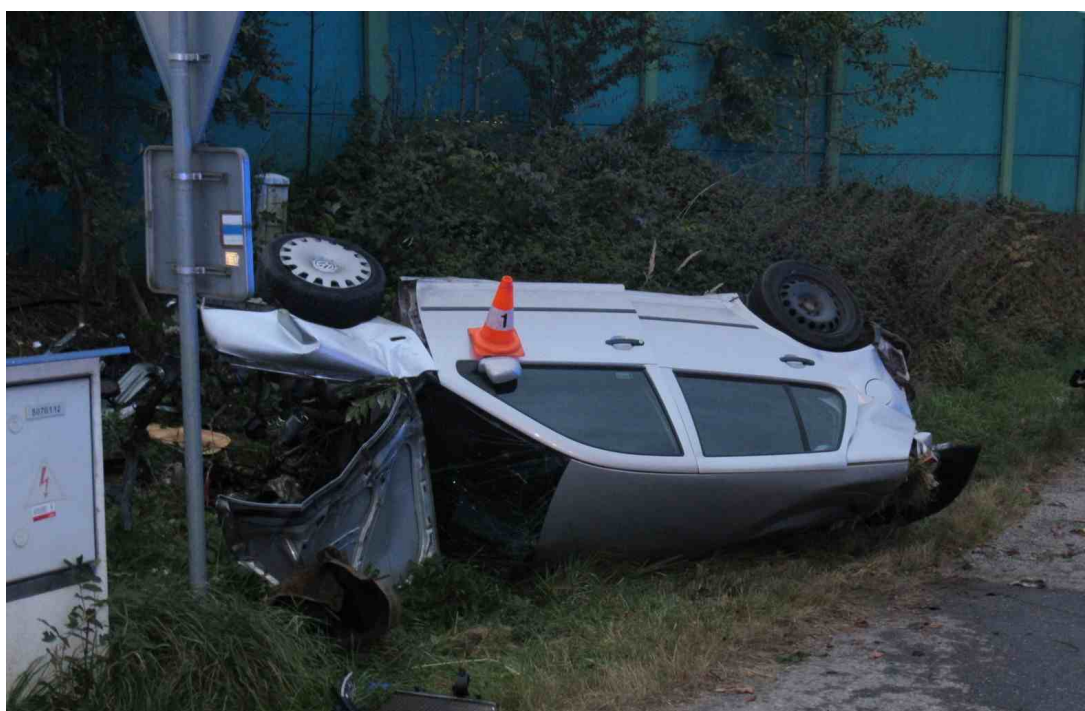


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### **ACCIDENT SUMMARY**

Date and time:	6 <sup>th</sup> October 2020, 17:38 (16:38 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the long distance passenger train No. 334 with a car at the level crossing.
Type of train:	the long distance passenger train No. 334.
Location:	Holkov station, the level crossing No. P5570, km 98,133.
Parties:	Správa železnic, státní organizace (the IM); České dráhy, a. s. (the RU of the long distance passenger train No. 334); driver of the car (level crossing user).
Consequences:	1 injury;  total damage CZK 10 903 032,-
Causal factor:	<ul style="list-style-type: none"><li>• an unauthorized entrance of the car at the level crossing No. P5570 at the time when the train No. 334 was moving, caused by behavior of the car driver, who did not respect the light and acoustic warning of the level crossing safety equipment and did not make sure whether he could safely pass the level crossing.</li></ul>
Contributing factor:	<ul style="list-style-type: none"><li>• behavior of the car driver affected by an addictive substance.</li></ul>
Systemic factor:	none.
Recommendation:	not issued.



## **ACCIDENT SUMMARY**

Date and time:	29 <sup>th</sup> October 2020, 17:22 (16:22 GMT).
Occurrence type:	trains collision.
Description:	unsecured movement of the tram No. 7 course 6/402 with consequent collision with oncoming tram No. 7 course 7/276.
Type of train:	the tram No. 7 course 6/402; the tram No. 7 course 7/276.
Location:	Ostrava, switch No. 644, the area of the road crossing Opavská and Martinovská streets; place of the collision was rail crossing K39, track No. 1.
Parties:	Dopravní podnik Ostrava, a. s. (the IM and the RU of the trams).
Consequences:	10 injuries; total damage CZK 2 471 062,-
Causal factor:	<ul style="list-style-type: none"><li>failure to detection the signal signaled by the signal device of the switch No. 644 and the incorrect position of the switch blades of the switch No. 644 by the driver of the tram No. 7 course 6/402.</li></ul>
Contributing factor:	none.
Systemic factor:	none.
Recommendation:	not issued.



## **ACCIDENT SUMMARY**

- Date and time: 19<sup>th</sup> December 2020, 18:23 (17:23 GMT).
- Occurrence type: train derailment.
- Description: derailment of the long distance passenger train No. 655.
- Type of train: the long distance passenger train No. 655.
- Location: Hluboká nad Vltavou-Zámostí station, station track No. 1, switch No. 11, km 10,991.
- Parties: Správa železnic, státní organizace (IM);  
České dráhy, a. s. (RU of the long distance passenger train No. 655).
- Consequences: 0 fatality, 0 injury;  
total damage CZK 3 401 648,-
- Causal factor:
- a sudden fracture of the left straight point blade of the switch No. 11 when the train No. 655 was moving over the switch.
- Contributing factors:
- long-term cyclical stress of the point blade by intensive railway traffic;
  - failure to detect fatigue cracks by the controls exercised in accordance with the procedures of the IM;
  - very low notched toughness of the rail material increasing the probability of fracture at reduced temperatures.
- Systemic factor: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- to adopt own measure, which ensure at IM Správa železnic, státní organizace:
    - from the point of view of current and possible future development of the modern defectoscopic methods, all available defectoscopic methods and procedures by which it is possible to detect hidden defects in the area of the the point blade rail foot on the side adjacent to stock rail will be continuously exercised, resp. evaluated and the most effective method or methods and procedures will be applied into the system of the exercised controls.



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## **ACCIDENT SUMMARY**

Date and time: 15<sup>th</sup> January 2021, 6:21 (5:21 GMT).  
Occurrence type: trains collision.  
Description: collision of the tram No. 8 course 103 with standing tram No. 8 course 116.  
Type of train: the tram No. 8 course 103;  
the tram No. 8 course 116.  
Location: Ostrava, Nádražní street, in front of the crossroad with 28. října street.  
Parties: Dopravní podnik Ostrava, a. s. (the IM and the RU of the trams).  
Consequences: 0 fatality, 11 injures;  
total damage CZK 20 292 337,-

Causal factor:

- failure to comply the conditions of running at sight by the tram driver of tram No. 8 course 103 at movement the tram rolling stocks at mutual distance.

Contributing factor:

- failure to focus of driving the tram by tram driver of the tram No. 8 course 103, which was affected by his fatigue.

Systemic factor: none.

Recommendation:

Addressed to the Municipal Authority of Ostrava:

- to adopt corresponding measure that the railway undertaking Dopravní podnik Ostrava, a. s., will not apply the provisions of § 17, section 2 of Government Decree No. 589/2006 Coll., which provides for a deviating regulation of working hours and rest of employees in transport, as amended, which can be used to shorten the continuous rest between two shifts of any employee below the limit of 11 hours determined by Act No. 262/2006 Coll., the Labor Code, as amended, respectively § 17 section 1 of Government Decree No. 589/2006 Coll., which provides for a deviating regulation of working hours and rest of employees in transport, as amended, in the full extent, but in the maximum possible reduction rate.



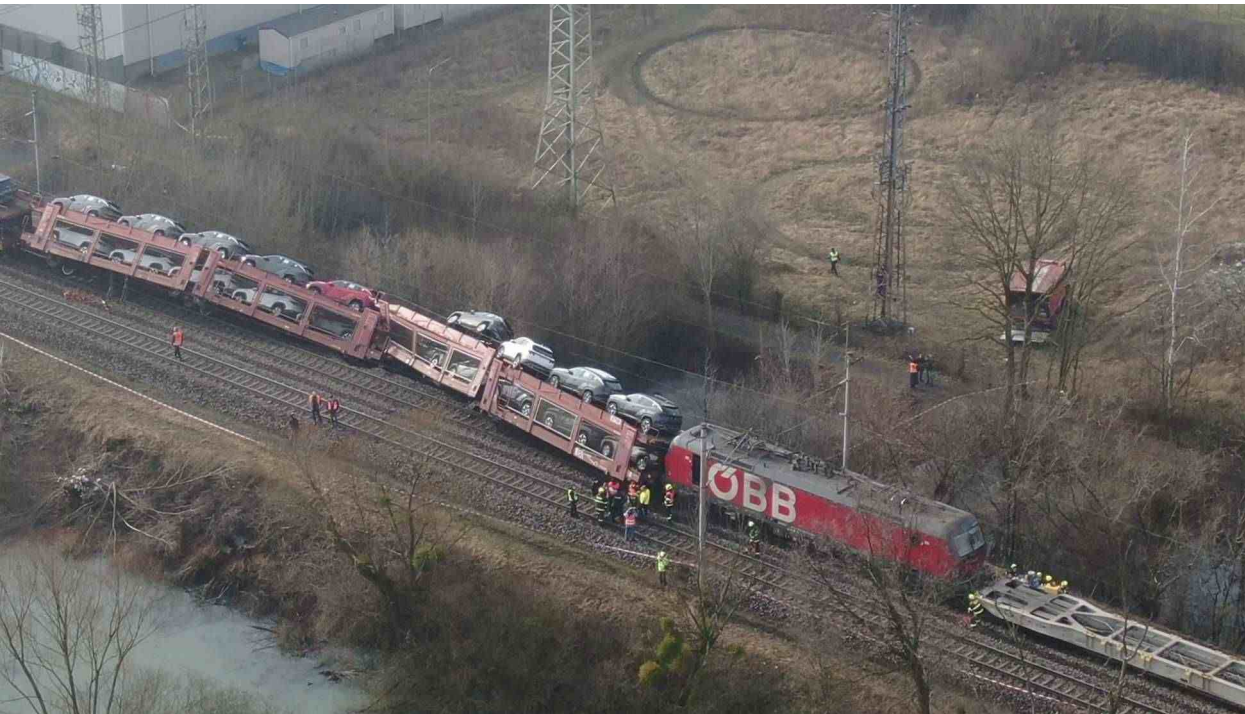


## **ACCIDENT SUMMARY**

Date and time:	5 <sup>th</sup> February 2021, 1:31 (0:31 GMT).
Occurrence type:	train collision.
Description:	collision of the freight train No. 42511 with the freight train No. 49455 which standing in front of the entrance signal device 2L to Otrokovice station.
Type of train:	the freight train No. 49455; the freight train No. 42511.
Location:	open line between Tlumačov and Otrokovice stations, track line No. 2, km 156,564.
Parties:	Správa železnic, státní organizace (IM); ČD Cargo, a. s. (RU of the freight train No. 49455); Rail Cargo Carrier - Czech Republic, s. r. o. (RU of the freight train No. 42511).
Consequences:	0 fatality, 1 injury; total damage CZK 14 737 811,-
Causal factor:	<ul style="list-style-type: none"><li>transmit of safety information (message) to rear operating point, that the whole train released the block section (gave of advice of train arrival) based of the content of the received previous safety information (confirmation of entry of the whole train to the station), which was in contradiction with objective fact.</li></ul>
Contributing factors:	<ul style="list-style-type: none"><li>personnel measure which decreased the set number of station dispatchers at the time of the next expansion of disconnection of the station and line safety and signalling plants;</li><li>time pressure in a situation when the station dispatcher had to perform the tasks and duties set for the position of two station dispatchers at the time of movement of shunting operations, train movements and to receive of transport measures after the next expansion of disconnection of the station and line safety and signalling plants.</li></ul>
Systemic factor:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Date and time: 4<sup>th</sup> March 2021, 14:20 (13:20 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the through passenger train No. 1455 with a car at the level crossing.
- Type of train: the through passenger train No. 1455.
- Location: open line between Slatiňany and Chrast u Chrudimi stations, the level crossing No. P5332, km 71,113.
- Parties: Správa železnic, státní organizace (IM);  
České dráhy, a. s. (RU of the through passenger train No. 1455);  
driver of the car (level crossing user).
- Consequences: 2 fatalities, 0 injury;  
total damage CZK 1 752 473,-
- Causal factor:
- an unauthorized entrance of the car at the level crossing No. P5332 at the time when the train No. 1455 was arriving, caused by behavior of the car driver, who did not respect the light and acoustic warning of the level crossing safety equipment and did not make sure whether he could safely pass the level crossing.
- Contributing factor: none.
- Systemic factor: none.
- Recommendation:
- Addressed to the Czech National Safety Authority (NSA):
- to take own measure to ensure addition of the level crossing No. P5332 which is secure by flashing light level crossing warning system to a level crossing system equipped with barriers which with regard to point of view of optical and manual barrier will reduce probability of the driver's entrance at the level crossing when he does not respond to light signalization in the warning state even because of near railway stop, where stopped only regional passenger trains.





## **ACCIDENT SUMMARY**

Date and time: 5<sup>th</sup> May 2021, 16:27 (15:27 GMT).

Occurrence type: level crossing accident.

Description: collision of the long distance passenger train No. 1171 with a lorry at the level crossing.

Type of train: the long distance passenger train No. 1171.

Location: open line between Písek and Čížová stations, the level crossing No. P488, km 17,132.

Parties: Správa železnic, státní organizace (IM);  
ARRIVA vlaky s. r. o. (RU of the long distance passenger train No. 1171);  
driver of the lorry (level crossing user).

Consequences: 0 fatality, 3 injuries;  
total damage CZK 14 230 957,-  
The amount of the damage does not final on the day of the final report processing.

Causal factor:

- an unauthorized entrance of the lorry at the level crossing No. P488 at the time when the train No. 1171 was arriving, caused by behavior of the lorry, who did not respect the light and acoustic warning of the level crossing safety equipment and did not make sure whether he could safely pass the level crossing.

Contributing factor: none.

Systemic factor: none.

Recommendation: not issued.



## **ACCIDENT SUMMARY**

Date and time:	21 <sup>st</sup> May 2021, 9:36 (7:36 GMT).
Occurrence type:	a train collision.
Description:	the collision of the shunting operation with the standing rolling stocks.
Type of train:	the shunting operation.
Location:	Olomouc hl. n., the passenger station circuit, the station track No. 8, km 86,982.
Parties:	Správa železnic, státní organizace (the IM); České dráhy, a. s. (the RU of the shunting operation and standing rolling stocks).
Consequences:	0 fatality, 2 injuries; total damage CZK 26 423,-
Causal factor:	<ul style="list-style-type: none"><li>• failure to give an immediate, brief and comprehensible instruction to stop the shunting operation safely in front of the standing rolling stocks to the train driver of the shunting operation by the supervisor of shunting.</li></ul>
Contributing factor:	<ul style="list-style-type: none"><li>• a sequence of faults in compliance with the internal regulations of the infrastructure manager and railway undertaking by the supervisor of the shunting operation in:<ul style="list-style-type: none"><li>◦ communication with the person who controls the railway traffic at Olomouc hl. n. station;</li><li>◦ acting after the detection of circumstances endangering safety during the shunting.</li></ul></li></ul>
Systemic factor:	none.
Recommendation:	not issued.

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