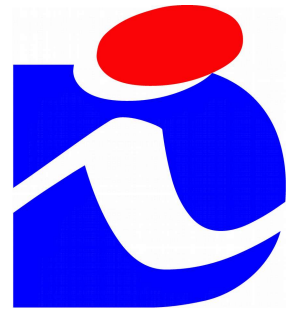




**Czech Republic**



**The Rail Safety  
Inspection Office**

# **NIB ANNUAL REPORT 2019**

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

(the Directive (EU) 2016/798 on railway safety has not been implemented into the national legislation yet)

## **The Rail Safety Inspection Office**

## **Czech Republic**

September 2020





## **PREFACE TO THE REPORT**

A National Investigation Body operates in the Czech Republic – The Rail Safety Inspection Office – conducting independent investigation of the causes and circumstances of railway accidents and incidents according to Directive 2004/49/EC, the principles and requirements of which have been implemented into the national legislation (the Directive (EU) 2016/798 on railway safety has not been implemented into the national legislation yet). 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 2019, pursuant to Art. 23(3) of Directive 2004/49/EC. It comprises information regarding:

- the National Investigation Body
- the system of investigation of railway accidents and incidents
- the investigations of accidents and incidents completed in 2019
- the safety recommendations issued



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### **Summaries of investigations completed in 2019**



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

### **1.1 Legal framework**

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

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

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

- serious accidents
- accidents
- incidents

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

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

### **1.2 Role and Mission**

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

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

- investigates the causes and circumstances of rail accidents and incidents,



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

### **1.3 Organisation**

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

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

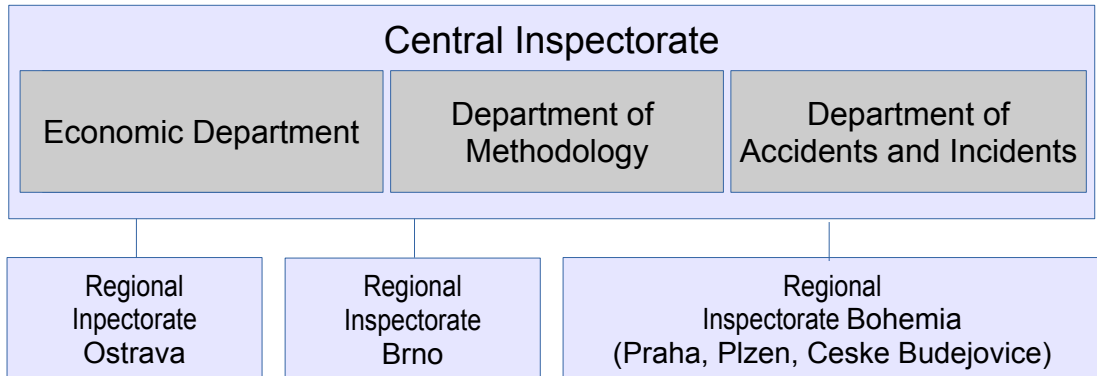
The Rail Safety Inspection Office has a total of **39 employees** in five cities of the Czech Republic (Ostrava, Brno, Praha, Plzen, Ceske Budejovice). It comprises of the Central Inspectorate and three regional inspectorates covering the area of the entire country. The Central Inspectorate consists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

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

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

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

**Regional Inspectorates** investigate the causes of rail accidents and incidents with the aim of enabling lessons to be learned for improving the safety of railways.



#### **1.4 Organisational flow**

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

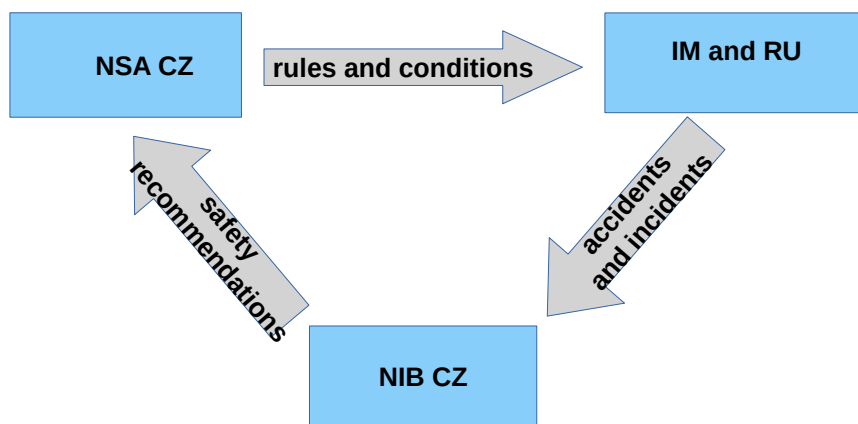
- railways (main lines, regional lines, sidings, underground)
- tram lines
- trolleybus lines
- cable-ways

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



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

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







## **2 INVESTIGATION PROCESSES**

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

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

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

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

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

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

- **Infrastructure manager or railway undertaking** identifies the causes and circumstances of accident or incident, focusing on the drafting of preventative measures and the proposal of responsibility for the occurrence.
- **The Rail Safety Inspection Office** investigates the causes and circumstances of accident or incident with a focus on the determination of the causes and issue of preventative safety recommendation. The investigation shall in no case be concerned with apportioning blame or liability.
- **Czech Police** investigate accident or incident with the aim of defining responsibility for the committing of offenses or criminal acts.

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

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

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

- independent investigation of the causes and circumstances of accident or incident (serious accidents and selected accidents and incidents only)



- meeting legal requirements for procedures following railway accident or incident by infrastructure manager and railway undertaking (for example notification without any delay, securing of accident site, etc.)

When notified about the occurrence of accident or incident by an infrastructure manager or railway undertaking, The Rail Safety Inspection Office will decide whether it will immediately go to the accident-site or not. If so, at the accident-site The Rail Safety Inspection Office will launch an independent investigation.

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

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



### 3 INVESTIGATIONS

#### 3.1 Overview of investigations completed in 2019, identifying key trends

Trends of completed investigations (last column of the table) are calculated as difference to previous year (2018).

Type of accidents investigated	Number of accidents	Number of victims		Damages in € (approx.)	Trends in relation to previous year
		Deaths	Ser.injury		
Collisions	9	0	0	1.352.080,-	+13 %
Derailments	8	0	0	1.011.603,-	+60 %
LC-accident	10	6	1	1.199.735,-	-57 %
Fire in RS	0	0	0	0	0 %
Acc. to person	2	2	0	0	+100 %
Other	18	0	0	2.510.888,-	-14 %

#### 3.2 Investigations completed and commenced in 2019

##### Investigations completed in 2019

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Completed (date)
17. 3. 2017	Level-crossing accident: km 3,438 between Teplice Zamecka zahrada – Prosetice stations	i	21. 2. 2019
11. 9. 2017	Other: Uncontrolled movement of rolling stocks with consequent collision with other rolling stock, obstacle and derailment in “Lovosice, pristav Prosmky” siding	ii	13. 12. 2019
15. 12. 2017	Other: SPAD of shunting operation in Kolin station	i	17. 1. 2019
18. 1. 2018	Other: SPAD in Smrzovka station with consequent collision with an obstacle	i	5. 4. 2019
3. 2. 2018	Other: Unauthorised movement of shunting operation other than SPAD in Melnik station with consequent collision with standing locomotive	i	7. 6. 2019
26. 3. 2018	Accident to person caused by RS in motion: in Rudoltice v Cechach station	i	3. 4. 2019
29. 4. 2018	Train derailment: in Lhotka u Melnika station	i	5. 3. 2019
3. 5. 2018	Trains collision: between Kremze – Borsov nad Vltavou station with consequent derailment	i	12. 6. 2019



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Legal basis</b>	<b>Completed</b> (date)
11. 6. 2018	Level-crossing accident: km 87,149 between Lochovice - Jince stations	i	28. 1. 2019
29. 6. 2018	Other: Tram trains collision in The City of Praha – between Stepanska – Karlovo namesti stops	ii	16. 1. 2019
1. 7. 2018	Other: Unauthorised train movement other than SPAD in Veseli nad Moravou station	i	9. 1. 2019
16. 7. 2018	Level-crossing accident: km 108,734 between Kamenny Ujezd u Ceskych Budejovic - Vcelna stations	i	11. 1. 2019
18. 7. 2018	Other: Unauthorised train movement other than SPAD in Svor station	i	7. 5. 2019
20. 7. 2018	Trains collision: in Brno hlavni nadrazi station	i	8. 4. 2019
20. 7. 2018	Trains collision: between Chrast u Plzne – Plzen hlavni nadrazi stations	i	10. 1. 2019
26. 7. 2018	Other: The injury of the train driver by electric current in Brno hlavni nadrazi station	i	21. 6. 2019
31. 7. 2018	Level-crossing accident: km 10,934 between Putim - Pisek stations	i	4. 4. 2019
1. 8. 2018	Level-crossing accident: km 108,734 between Kamenny Ujezd u Ceskych Budejovic - Vcelna stations	i	21. 2. 2019
15. 8. 2018	Train derailment: in Praha Vrsovice seradovaci nadrazi station	i	23. 4. 2019
16. 8. 2018	Level-crossing accident: km 20,786 in Cizova station	i	26. 3. 2019
17. 8. 2018	Train derailment: in Rymarov station	i	6. 2. 2019
7. 9. 2018	Train derailment: in Kolin station	i	25. 11. 2019
18. 9. 2018	Level-crossing accident: km 0,263 in Kralupy nad Vltavou predmesti station	i	4. 10. 2019
21. 9. 2018	Other: SPAD in Stepanov station	i	6. 3. 2019
21. 9. 2018	Other: Collision of rolling stocks during shunting operation in Ceske Budejovice station with consequent derailment	i	30. 4. 2019
21. 9. 2018	Trains collision with an obstacle: between Holysov - Stankov stations	i	30. 9. 2019
24. 9. 2018	Train derailment: between Chvateruby - Uzice stations	i	9. 5. 2019
23. 10. 2018	Other: SPAD in Studenec station	i	28. 5. 2019
28. 10. 2018	Level-crossing accident: km 10,693 between Brandys nad Labem - Neratovice stations	i	6. 6. 2019



Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Completed (date)
5. 11. 2018	Level-crossing accident: km 127,065 between Turnov - Sychrov stations	i	15. 5. 2019
15. 11. 2018	Other: Uncontrolled movement of rolling stocks with consequent collision with shunting operation in testing railway "Zeleznicni zkusebni okruh Cerhenice"	i	30. 8. 2019
18. 11. 2018	Train derailment: in Studenka station	i	30. 4. 2019
20. 11. 2018	Trains collision: between branch Chotebuz - Cesky Tesin station	i	10. 7. 2019
21. 11. 2018	Other: Derailment during shunting operation in Strakonice station	i	20. 5. 2019
22. 11. 2018	Other: Tram trains collision in The City of Praha – between Palackeho namesti – Jiraskovo namesti stops	ii	12. 8. 2019
11. 12. 2018	Trains collision: in Karlovy Vary dolni nadrazi station	i	15. 8. 2019
13. 12. 2018	Accident to person caused by RS in motion: between Trebovice v Cechach – Ceska Trebova stations	i	3. 7. 2019
9. 1. 2019	Other: Unauthorised train movement other than SPAD in Lestina u Svetle station	i	20. 12. 2019
10. 1. 2019	Other: SPAD in Liberec station with consequent collision with an obstacle	i	17. 7. 2019
18. 1. 2019	Other: Uncontrolled movement of rolling stocks in Chodov station	i	19. 7. 2019
27. 1. 2019	Train derailment: in Lovetin station	i	27. 6. 2019
15. 2. 2019	Train derailment: in Kamenice nad Lipou station	i	28. 6. 2019
19. 2. 2019	Other: Uncontrolled movement of train between Velke Mezirici - Krizanov stations	i	20. 12. 2019
22. 2. 2019	Other: SPAD in Ejpvovice station	i	11. 11. 2019
27. 2. 2019	Trains collision: in Havlickuv Brod station	i	12. 11. 2019
2. 3. 2019	Other: SPAD in Praha Smichov station	i	15. 11. 2019
13. 7. 2019	Level-crossing accident: km 8,544 between Lubna - Zavidov stations	i	27. 11. 2019

**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 2019

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis
15. 11. 2018	Other: Uncontrolled movement of rolling stocks with consequent collision with shunting operation in testing	i



	railway "Železniční zkusební okruh Cerhenice"	
9. 1. 2019	Other: Unauthorised train movement other than SPAD in Lestina u Svetle station	i
10. 1. 2019	Other: SPAD in Liberec station with consequent collision with an obstacle	i
18. 1. 2019	Other: Uncontrolled movement of rolling stocks in Chodov station	i
22. 1. 2019	Level-crossing accident: km 5,446 between Vratislavice nad Nisou – Prosec nad Nisou stations	
27. 1. 2019	Train derailment: in Lovetin station	i
15. 2. 2019	Train derailment: in Kamenice nad Lipou station	i
19. 2. 2019	Other: Uncontrolled movement of train between Velke Mezirici - Krizanov stations	i
22. 2. 2019	Other: SPAD in Ejpvovice station	i
23. 2. 2019	Other: Collision of rolling stocks during shunting operation in Ceske Budejovice station	i
26. 2. 2019	Trains collision: in Jihlava station	i
27. 2. 2019	Trains collision: in Havlickuv Brod station	i
2. 3. 2019	Other: SPAD in Praha Smichov station	i
4. 3. 2019	Trains collision: between Ronov nad Doubravou – Zleby stations	i
5. 3. 2019	Trains collision: in Brno hlavní nadraží station	i
11. 3. 2019	Other: Unauthorised train movement other than SPAD in Most nové nadraží station	i
14. 3. 2019	Accident to person caused by RS in motion: in Rajec Jestřebí station	i
29. 3. 2019	Train derailment: in Kostelec u Hermanova Městce station	i
29. 3. 2019	Other: Uncontrolled movement of rolling stock with consequent collision with an obstacle and derailment in Veselí nad Moravou station	i
1. 4. 2019	Other: Tram trains collision in The City of Brno – in Masná stop	ii
13. 4. 2019	Other: Unauthorised movement of shunting operation other than SPAD with consequent collision with other rolling stocks, derailment and fire in "prístav Melník" siding	ii
19. 4. 2019	Accident to person caused by RS in motion: in Ústí nad Orlicí station	i
17. 5. 2019	Train derailment: between Domoušice - Hřivice stations	i
28. 6. 2019	Train derailment: in Vysoké Mýto station	i
8. 7. 2019	Trains collision: in Plzeň hlavní nadraží station	i
13. 7. 2019	Level-crossing accident: km 8,544 between Lubná - Zavidov stations	i
14. 7. 2019	Level-crossing accident: km 35,068 between Jaroměř - Smržice stations	i



16. 7. 2019	Level-crossing accident: km 108,978 in Horetice station	i
21. 7. 2019	Other: Tram trains collision with an obstacle in The City of Praha – between Trojska – Nad Trojou stops	ii
24. 7. 2019	Trains collision with an obstacle with consequent derailment: between Nova Paka – Lazne Belohrad stations	i
28. 7. 2019	Train derailment: between Chodova Plana – Marianske Lazne stations	i
30. 7. 2019	Level-crossing accident: km 4,981 between branch Moravice – Hradec nad Moravici station	i
19. 8. 2019	Other: Uncontrolled movement of rolling stock with consequent collision with other rolling stocks in “DEZA Valasske Mezirici” siding	ii
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	i
21. 8. 2019	Level-crossing accident: km 16,382 between Ronov nad Doubravou – Tremosnice stations	i
23. 8. 2019	Level-crossing accident: km 94,631 between Zakupy - Mimon stations	i
25. 8. 2019	Other: Uncontrolled movement of tram train with consequent collision with an obstacle in The City of Olomouc – in U Domu stop	ii
29. 8. 2019	Other: SPAD of shunting operation in Kolin station	i
31. 8. 2019	Train derailment: in Lipa nad Drevnici station	i
6. 9. 2019	Level-crossing accident: km 169,968 in Praha Uhrineves station	i
12. 9. 2019	Level-crossing accident: km 16,178 between Hnevceves - Vsestary stations	i
17. 9. 2019	Other: Tram train derailment: in The City of Praha – between Baterie – Orechovka stops	ii
30. 9. 2019	Other: Train derailment in “Liberty Ostrava” siding	ii
1. 10. 2019	Level-crossing accident: km 0.645 in Hrusovany nad Jevisovkou Sanov station	i
2. 10. 2019	Train derailment: in Omlenice station	i
20. 10. 2019	Level-crossing accident: km 182,324 between Blansko - Rajec Jestrebi stations	i
3. 11. 2019	Train derailment: in Praha Malesice station	i
5. 11. 2019	Other: Unauthorised train movement other than SPAD between Cachnov - Skutec stations	i
18. 11. 2019	Other: SPAD of shunting operation in Decin vychod dolni nadrazi station	i
27. 11. 2019	Other: SPAD in Praha Bechovice station	i
9. 12. 2019	Trains collision with an obstacle: in Zamrsk station	i



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

### 3.3 Research studies (or Safety Studies) commissioned and completed in 2019

#### Safety Studies completed in 2019

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

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

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

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

### 3.4 Summaries of investigations completed in 2019

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 2019 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 2015–2019)

#### Rail investigations completed in 2015–2019

The table groups investigations by year of their completion.

Accidents investigated		2015	2016	2017	2018	2019	TOT
Serious accidents (Art 19, 1 + 2)	Train collision	0	1	0	0	0	1
	Train collision with an obstacle	0	0	0	1	0	1
	Train derailment	0	0	0	0	0	0
	Level-crossing accident	-	-	-	-	-	-
	Accident to person caused by RS in motion	-	-	-	-	-	-
	Fire in rolling stock	-	-	-	-	-	-
	Involving dangerous goods	0	0	-	-	-	0
Other accidents (Art 21.6)	Train collision	3	6	3	2	6	20
	Train collision with an obstacle	4	3	0	5	3	15
	Train derailment	4	5	5	5	8	27
	Level-crossing accident	8	5	7	23	10	53
	Accident to person caused by RS in motion	2	1	2	1	2	8
	Fire in rolling stock	0	0	0	0	0	0
	Involving dangerous goods	0	0	0	0	0	0
Incidents	1	0	3	9	9	22	
<b>TOTAL</b>		<b>22</b>	<b>21</b>	<b>20</b>	<b>46</b>	<b>38</b>	<b>147</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 2015 – 2019

Recommendations issued		Recommendation implementation status					
		Implemented		In progress		Not to be implemented	
Year	[No.]	[No.]	[%]	[No.]	[%]	[No.]	[%]
2015	25	11	44	13	52	1	4
2016	20	5	25	13	65	2	10
2017	16	3	18,75	5	31,25	8	50
2018	31	7	22,5	20	64,5	4	13
2019	19	4	21	13	68,5	2	10,5
<b>TOTAL</b>	<b>111</b>	<b>30</b>	<b>27</b>	<b>64</b>	<b>57,5</b>	<b>17</b>	<b>15,5</b>

#### Accidents with safety recommendations issued in 2015 – 2019

Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
11. 10. 2013	Accident to person caused by RS in motion: in Karlov pod Jestedem station	partially implemented	15. 1. 2015
11. 7. 2014	Level-crossing accident: km 6,006 between Brno Chrlice – Brno hlavní nadraží stations	implemented	4. 3. 2015
30. 8. 2014	Level-crossing accident: km 77,275 between Slatinany – Chrudim stations	implemented	29. 4. 2015
9. 9. 2014	Accident to person caused by RS in motion: The city of Ostrava – tram stop Horní	partially implemented	14. 5. 2015
1. 12. 2014	Train derailment: between Pátek – Horázdovice předměstí stations	implemented	27. 5. 2015
8. 7. 2014	Trains collision: in Česká Třebová station with consequent derailment	partially implemented	28. 5. 2015



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



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



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
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
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	partially implemented	11. 10. 2017
20. 7. 2017	Level-crossing accident: km 35,293 in Bystrice pod Hostynem station	partially implemented	18. 12. 2017
27. 7. 2017	Level-crossing accident: km 161,719 in Starec station	not implemented	15. 11. 2017
30. 7. 2017	Level-crossing accident: km 25,744 between Hostomice pod Brdy - Lochovice stations	partially 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	in progress	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



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



<b>Date of occurrence</b>	<b>Title of the investigation</b> (Occurrence type, location)	<b>Status of implem.</b>	<b>Completed</b> (date)
11. 7. 2018	Level-crossing accident: km 148,280 in Stankov station	partially implemented	28. 11. 2018
17. 3. 2017	Level-crossing accident: km 3,438 between Teplice Zamecka zahrada – Prosetice stations	implemented	21. 2. 2019
15. 12. 2017	Other: SPAD of shunting operation in Kolin station	partially 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	partially implemented	7. 6. 2019
26. 3. 2018	Accident to person caused by RS in motion: in Rudoltice v Cechach station	not implemented	3. 4. 2019
29. 4. 2018	Train derailment: in Lhotka u Melnika station	in progress	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	partially 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	in progress	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	partially implemented	20. 5. 2019
13. 7. 2019	Level-crossing accident: km 8,544 between Lubna - Zavidov stations	partially implemented	27. 11. 2019



#### 4.2 Recommendations issued in 2019

Date of occurrence	Title of the investigation, Safety recommendation
17. 3. 2017	Level-crossing accident: km 3,438 between Teplice Zamecka zahrada – Prosetice stations
<p><b>Addressed</b> to The Czech Ministry of Transport:</p> <ul style="list-style-type: none"> <li>to increase public awareness about the meaning of the „alarm signal" of the level crossing safety equipment.</li> </ul>	
15. 12. 2017	Other: SPAD of shunting operation in Kolin station
<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>within its control activities it is recommended to focus on observance of the established rules for organization and carrying out the shunting operations by the employees of the IM and the RUs and it is also recommended to challenge the participating IMs/RUs to control the observance of the rules for organization and carrying out the shunting operations too.</li> </ul>	
18. 1. 2018	Other: SPAD in Smržovka station with consequent collision with an obstacle
<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>to ensure that the internal regulations of RUs will explicitly determine procedures to prevent the situation of reducing the coefficient of friction between a wheel and a brake block and of insufficient braking effect (e. g. due to creation of the frozen lumps between a wheel and a brake block) for all rolling stocks;</li> <li>to ensure that train drivers with longer experience (derived from the regularity and frequency of driving in similar specific conditions under adverse weather conditions) will operate on the Josefův Důl - Smržovka line and other lines which are similar challenging because of their gradient. In case when it is necessary to operate by the train drivers with shorter experience to ensure that they will be trained in driving of the similar series of the train when there is a snow cover before driving on the specified lines.</li> </ul>	
3. 2. 2018	Other: Unauthorised movement of shunting operation other than SPAD in Melník station with consequent collision with standing locomotive
<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>to focus on compliance with the rules for organization and carrying out of the shunting operations (including the radio communication) by the individual participating employees within security monitoring and its own control activities and also on the control activities of the IMs and RUs concerning this area;</li> <li>to ensure that control activities of the compliance with the rules for organization and carrying out of the shunting operations (including the radio communication) executed by the participating infrastructure managers and railway undertakings will increase.</li> </ul>	





<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
26. 3. 2018	Accident to person caused by RS in motion: in Rudoltice v Cechach station
<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <p>using its powers to ensure at the IM (Správa železniční dopravní cesty, s.o.) and at other IMs on the railways:</p> <ul style="list-style-type: none"><li>• to add clear rules for the probative transference of the information related to the closing of the track possession between the work leader and the responsible deputy of the client of the track possession into the technological procedures;</li><li>• to create uniform patterns for documenting and for transference of the information, to determine the archiving time and to determine elements which must the security information about closing of the track possession contain when it is transferred between:<ul style="list-style-type: none"><li>◦ the organizational representative of the producer, the track possession work leader and the responsible deputy of the client of the track possession;</li><li>◦ the sequence control officer and the responsible deputy of the client of the track possession.</li></ul></li><li>• to always stipulate the conditions for executing inspections by the client (the IM) at the field of health and safety protection at work and the all relevant provisions of the legislation and the technological procedures of the IM into the contracts, in relation to the risks, the nature and the extent (length) of ordered (done) work, and to subsequently execute such inspections, to document them properly, to evaluate them immediately and to adopt effective measures.</li></ul>	
29. 4. 2018	Train derailment: in Lhotka u Melnika station
<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>• to consider addition the self-returning switches to the active signal „Driving safe” with an active alert signal to prohibit following ride in cases when the switch is not in the final preferred position for the IMs of the self-returning switches.</li></ul>	
3. 5. 2018	Trains collision: between Kremze – Borsov nad Vltavou station with consequent derailment
<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>• to ensure an early warning about the exemption expiration specified in the Decree No. 173/1995 Coll. and about the obligation of the RUs to operate the rolling stocks which will be equipped with a compatible functional mobile part of the radio equipment with the operated track part of the train radio system serving to ensure railway transport control and also for transmission of commands, signals, messages or data transfer on the lines or on the part of the line with the operated trackside part of the train radio system and then to check and subsequently to</li></ul>	



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	<p>supervise performance of the above mentioned obligation;</p> <ul style="list-style-type: none"> <li>to ensure that the above mentioned rolling stocks will be also equipped with an active external module „STOP“, which will enable to stop the train without the need for cooperation between a person entering the „STOP“ or „GENERAL STOP“ command and a person driving the railway vehicle and subsequently to ensure the supervision of performance of the above mentioned obligation (after the exemption expiration specified in the Decree No. 173/1995 Coll.).</li> </ul>
11. 6. 2018	Level-crossing accident: km 87,149 between Lochovice - Jince stations
	<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of railway tracks and the level crossings;</li> <li>change of the level crossing system of the level crossing No. P551 to a level crossing system equipped with barriers, which from the point of view as an optical barrier will reduce probability of the driver's entrance at the level crossing when a driver does not respond to the light and acoustic warning of the level crossing safety equipment.</li> </ul>
16. 7. 2018	Level-crossing accident: km 108,734 between Kamenny Ujezd u Ceskych Budejovic - Vcelna stations
	<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;</li> <li>it is recommended to take own measure for change the level crossing system of the level crossing No. P5577 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment;</li> <li>it is recommended to take measure for ensure visibility of warning state of level crossing safety equipment of level crossing No. P5577 to the appropriate distance from all roads.</li> </ul>
31. 7. 2018	Level-crossing accident: km 10,934 between Putim - Pisek stations
	<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> <li>it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level</li> </ul>



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	<p>crossing safety equipment with warning lights and barriers;</p> <ul style="list-style-type: none"><li>it is recommended to take own measure for change the level crossing system of the level crossing No. P483 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing even if the driver responds to the visual and acoustic warning given by the level crossing safety equipment but driver stops in the dangerous zone of the level crossing and part of vehicle reaches to the railway loading gauge.</li></ul> <p><b>Addressed</b> to the Municipal Authority of Písek as the Road Administration Office in cases of the local streets:</p> <ul style="list-style-type: none"><li>to ensure that the traffic signs (in front of the level crossing No. P483) were add to some of the visible lane marking symbols, which are transverse line continuous No. V 5 (stop line), visual psychological brake No. V 18 or symbol of warning cross (horizontal symbol of road sign No. A 32).</li></ul>
16. 8. 2018	Level-crossing accident: km 20,786 in Cizova station
	<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;</li><li>it is recommended to take own measure for change the level crossing system of the level crossing No. P491 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.</li></ul>
7. 9. 2018	Train derailment: in Kolin station
	<p><b>Addressed</b> to The Czech national Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>as part of its activities as a national safety authority, we recommend that the NSA verify the overall technical condition of the switch No. 169 part „a“ at Kolín station and the technical condition of the related jaw point locks and in case a non standard contact of the locking hook with the stock rail foot is detected then this situation should be solved in common with the switch operator and the manufacturers of the devices;</li><li>as part of its activities as the national safety authority, we recommend that the NSA adopt measures to ensure that the infrastructure manager SZDC:<ol style="list-style-type: none"><li>will require a comprehensive assessment and evaluation of all main factors which may have an impact on the fatigue strength and life (e. g. material,</li></ol></li></ul>



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
	<p>surface, shape, technology, operating load and conditions, etc.) from their manufacturers using the advanced analytical and numerical methods and modeling to select the element with the best fatigue rating (e. g. design for permanent strength), on condition that any other technical and design parameters, problems and constraints will not resist the choice of this solution; this should be made always before the new components of the switch and the point lock, on which the safety of the guided transport operating directly depends, will be put into operation;</p> <ol style="list-style-type: none"><li>2. will ensure that only the locking hooks which will be modified according to the previous point – so that their parameters in terms of fatigue properties will be improved – will be used at the internal tongues of the diamond crossings with slips and similar types of the locking hooks used in the jaw point locks for the swing crossing noses in case the jaw locking hooks are newly assembled into the diamond crossings with slips and the swing crossing noses;</li><li>3. will ensure that the one-time control of all diamond crossings with slips and swing crossing noses with the jaw locks (approx. 122 pcs) will be exercised. The control will be focused on the condition of the locking hooks used at the internal tongues of diamond crossings with slips and the similar types of the locking hooks used in the jaw point locks for the swing crossing noses. The top wall of these locking hooks should be controlled for cracks at least visually during this control. At the same time it should be controlled even when these locking hooks do not appear to be violently damaged. In the case that there any locking hook with cracks is found during the one-off control, it is necessary to ensure the safety at the site;</li><li>4. will ensure that the violently damaged locking hooks used at the internal tongues of the diamond crossings with slips and the similar types of the locking hooks used in the jaws point locks for the swing crossing noses will be replaced for the locking hooks which will be structurally modified according to the point 1 (so that their parameters in terms of fatigue properties will be improved), preferably in the switches which are heavily loaded with traffic and which allow the moving of the rolling stocks at higher speeds. This should be based on the evaluation and results of the one-off control in accordance with the previous paragraph;</li><li>5. will consider the possible addition of the set system for checking the switches and point locks on the basis of the evaluation and results of the one-off control according to the point 3 and eventually will consider that the till then used locking hooks at internal tongues of the diamond crossings with slips and similar types of the locking hooks used in the jaw point locks for the swing crossing noses should be replaced for those locking hooks which are structurally modified according to the point 1 (when their fatigue parameters will be improved);</li></ol> <ul style="list-style-type: none"><li>• we recommend that the NSA adopt own measures to ensure the implementation of the above safety recommendations for other IMs in the Czech Republic.</li></ul>



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
18. 9. 2018	Level-crossing accident: km 0,263 in Kralupy nad Vltavou predmesti station
<p><b>Addressed</b> to The Czech national Safety Authority (NSA) in cooperation with Ministry of Interior:</p> <ul style="list-style-type: none"><li>• to ensure the verification and eventual reevaluation the current system of cooperation between IMs and units of integrated rescue system at solving situations, when threatens danger in delay and it is necessary to adopt urgent measures for ensure safety guideway operating and guided transport operating so as to ensure that:<ul style="list-style-type: none"><li>◦ in the transmission of information will be a minimum number of intermediators at the configured system;</li><li>◦ the preferred contact will be determined in such a way as to eliminate the possibility of confusion with other contacts;</li><li>◦ the relevant data (telephone numbers) will be updated correctly, i.e. with regard to the setting of information systems of all parties, it will be ensured that at all level crossings will be imported correctly into these systems;</li><li>◦ the reliability of the system will be regularly checked.</li></ul></li></ul>	
21. 9. 2018	Trains collision with an obstacle: between Holysov - Stankov stations
<p><b>Addressed</b> to the Ministry of Transport of the Czech Republic in cooperation with other ministries and the Czech National Safety Authority (the NSA):</p> <ul style="list-style-type: none"><li>• it is recommended to initiate the amendment of the provision of the act no. 266/1994 Coll., On rail systems as amended, of the act no. 114/1992 Coll., on the Conservation of Nature and Landscape as amended, and of the act no. 289/1995 Coll., on Forests and Amendments to some Acts (the Forest Act) as amended so that:<ul style="list-style-type: none"><li>◦ the landlords and the administrators of the land in the railway protective area will have a legal duty to keep the trees and bushes in such condition and height that they do not endanger the rail system operation and its components and do not limit the safety and flow of the guideway transport and this duty will be legally enforceable by the penalty for default the duty.</li></ul></li></ul>	
23. 10. 2018	Other: SPAD in Studenec station
<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>• on the lines where the ETCS is not going to be introduced into operation to install the technical equipment for emergency stopping of trains. This equipment will be automatically activated when the rolling stock illegally passes signal at danger. To take own measure forcing implementation of the above recommendation for other infrastructure managers (IM) of nation-wide railway, respectively regional railway</li></ul>	



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
and railway undertakings (RU) in the Czech Republic.	
5. 11. 2018	Level-crossing accident: km 127,065 between Turnov - Sychrov stations
<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>• it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only the level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of the railway tracks and the level crossings;</li><li>• it is recommended to adopt own measure for change of the level crossing system of the level crossing No. P3096 to a level crossing system equipped with barriers, which from the point of view as an optical barrier will reduce probability of the driver's entrance at the level crossing when a driver does not respond to the light and acoustic warning of the level crossing safety equipment.</li></ul>	
18. 11. 2018	Train derailment: in Studenka 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 to ensure executing a one-off inspection of the wheel tyres of the rolling stocks used by all RUs within the EU Member States, whether they originate from melt No. 33049 produced by the manufacturer of the railway wheelsets Huta Gliwice. When this tyre is detected, to ensure that effective measure will be adopted to prevent derailment of the rolling stock.</li></ul>	
21. 11. 2018	Other: Derailment during shunting operation in Strakonice station
<b>Addressed</b> to The Czech National Safety Authority (NSA): <ul style="list-style-type: none"><li>• to adopt own measure to ensure at the RU České dráhy, a. s.:<ul style="list-style-type: none"><li>◦ the top limit of the interval for kilometric run for the periodic higher repairs will be defined in the Annex 1 of the internal regulation ČD V 25;</li><li>◦ the wording of the article No. 20 in the internal regulation ČD V 25 will be changed to define the top limit of the interval for kilometric run for the periodic higher repairs;</li></ul></li><li>• to adopt own measure to ensure for all RUs in the Czech Republic operating locomotives of the 230, 240 and 242 series:<ul style="list-style-type: none"><li>◦ the one-off control will be executed and it will be focused on the technical condition of the front connecting rods, namely the weld area between the eye and the connecting rod body;</li><li>◦ the regular controls – not only the defectoscopic control of the end pin of the front connecting rods of the tractive effort transmission equipment, but also the defectoscopic control of the weld between the eye and the connecting rod body</li></ul></li></ul>	



<b>Date of occurrence</b>	<b>Title of the investigation, Safety recommendation</b>
– will be executed over the locomotives of the series mentioned above.	
13. 7. 2019	Level-crossing accident: km 8,544 between Lubna - Zavidov stations
<p><b>Addressed</b> to The Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"><li>• it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only the level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of the railway tracks and the level crossings;</li><li>• it is recommended to adopt own measure for change of the level crossing system of the level crossing No. P1735 to a level crossing system equipped with barriers, which from the point of view as an optical barrier will reduce probability of the driver's entrance at the level crossing when a driver does not respond to the light and acoustic warning of the level crossing safety equipment.</li></ul> <p><b>Addressed</b> to the Municipal Authority of Rakovník as the Road Administration Office in the field of roads II. Class:</p> <ul style="list-style-type: none"><li>• it is recommended to adopt own measure to ensure that the traffic signs A 31a "Signboard (240 m)", A 30 "Level crossing without barriers", A 31b "Signboard (160 m)" and A 31c "Signboard (80 m)" which are placed before the level crossing No. P1735 in both directions, will be retrofitted with yellow reflective coloring to highlight the designated traffic signs.</li></ul>	

## **ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	17 <sup>th</sup> March 2017, 18:45 (17:45 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 16117 with a bus at the level crossing No. 2096.
Type of train:	regional passenger train No. 16117.
Location:	open line between Řetenice and Úpořiny stations, level crossing No. P2096, km 3,438.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 16117); driver of the bus (level crossing user).
Consequences:	0 fatality, 0 injury; total damage CZK 224 300,-
Direct causes:	<ul style="list-style-type: none"><li>• failure to compliance of the prescribed way of driving with measures for train caution in front of the level crossing and in the area of the level crossing by train driver in preparation, respectively by the train driver of the regional passenger train No. 16117;</li><li>• failure to compliance of the prescribed way of the bus driver and driving across the level crossing at the time when it was forbidden.</li></ul>
Contributory factor:	none.
Underlying causes:	<ul style="list-style-type: none"><li>• failure to respect the IM signals, which was given to the train driver in preparation, respectively by the train driver of the regional passenger train No. 16117 while driving the train;</li><li>• behavior of the bus driver in front of the level crossing, when he did not convince, if it is possible safely cross over the level crossing.</li></ul>
Root cause:	none.
Recommendation:	
Addressed to The Czech Ministry of Transport:	<ul style="list-style-type: none"><li>• to increase public awareness about the meaning of the „alarm signal" of the level crossing safety equipment.</li></ul>



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**ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	11 <sup>th</sup> September 2017, 8:25 (6:25 GMT).
Occurrence type:	an unsecured movement.
Description:	the runaway of the rolling stocks with their consequent derailment through the sleeper and collision with the crane.
Type of train:	the shunting operation (the detached rolling stocks).
Location:	Vlečka přístav Prosmky siding, the siding track No. 101b, km 0,457, a place of the collision with the sleeper and also a place of the derailment – the siding track No. 101b, km 0,779.
Parties:	Raeder & Falge s. r. o. (IM); LTE Logistik a Transport Czechia s.r.o. (RU of the shunting operation); Česko – saské přístavy s. r. o. (an owner of the siding and the crane).
Consequences:	0 fatality, 0 injury; total damage CZK 1 585 983,-
Direct cause:	<ul style="list-style-type: none"><li>insufficient securing of the detached rolling stocks against runaway by the qualified person.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>arbitrary execution of the tasks by the person without professional competence</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>failure to comply with the specified technological procedures of the IM for securing the detached rolling stocks against runaway.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: an incident.
- Date and time: 15<sup>th</sup> December 2017, 11:07 (10:07 GMT).
- Occurrence type: an unauthorized movement.
- Description: the unauthorized movement of the shunting operation behind the route signal device Sc110b and its ride into the train route for the long distance passenger train No. 986.
- Type of train: the shunting operation;  
the long distance passenger train No. 986.
- Location: Kolín station, the route signal device Sc110b, km 298,087.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the shunting operation and the long distance passenger train No. 986).
- Consequences: 0 fatalities, 0 injuries;  
total damage CZK 0,-
- Direct cause:
- operational error of the shunting operation driver (he did not respect the signal „Stop” of the route signal device Sc110b).
- Contributory factors:
- an unauthorized lighting of the signal „Shunting allowed” on the signal device Sc110 by the line dispatcher when a previous permission for the shunting operation was not given;
  - the shunting operation driver unauthorizelly set the shunting operation into the motion when the permission for the shunting operation was not given and the station dispatcher was not informed about the required technology of the shunting operation.
- Underlying cause:
- failure to observe the technological procedures of the RU and IM by the shunting operation driver, who did not follow the signals of the IM.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- within its control activities it is recommended to focus on observance of the established rules for organization and carrying out the shunting operations by the employees of the IM and the RUs and it is also recommended to challenge the participating IMs/RUs to control the observance of the rules for organization and carrying out the shunting operations too.

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## **ACCIDENT SUMMARY**

- Grade: an accident.
- Date and time: 18<sup>th</sup> January 2018, 16:20 (15:20 GMT).
- Occurrence type: an unauthorized movement.
- Description: the unauthorized movement of the regional passenger train No. 26341 behind the signal device Sc3 with the consequent collision with the buffer stop.
- Type of train: the regional passenger train No. 26341.
- Location: Smržovka station, the signal device No. Sc3, km 20,681; a place of the collision with the buffer stop, km 20,680.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 26341).
- Consequences: 3 injuries;  
total damage CZK 0,-
- Direct cause:
- reducing the braking effect of the rolling stocks of the regional passenger train No. 26341 due to frozen lumps which were created between wheels and brake blocks.
- Contributory factor:
- adverse weather conditions (powder snow).
- Underlying cause:
- failure to observe the RU's technological procedures by the train driver – insufficient heating of the friction node of the train braking system of the train No. 26341 at the entrance to Smržovka station when the temperature was lower than 2 °C and the powder snow was swirled.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- to ensure that the internal regulations of RUs will explicitly determine procedures to prevent the situation of reducing the coefficient of friction between a wheel and a brake block and of insufficient braking effect (e. g. due to creation of the frozen lumps between a wheel and a brake block) for all rolling stocks;
  - to ensure that train drivers with longer experience (derived from the regularity and frequency of driving in similar specific conditions under adverse weather conditions) will operate on the Josefův Důl - Smržovka line and other lines which are similar challenging because of their gradient. In case when it is necessary to operate by the train drivers with shorter experience to ensure that they will be trained in driving of the similar series of the train when there is a snow cover before driving on the specified lines.

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## **ACCIDENT SUMMARY**

Grade: an accident.  
Date and time: 3<sup>rd</sup> February 2018, 8:35 (7:35 GMT).  
Occurrence type: a train collision.  
Description: the unsecured movement of the shunting operation with the consequent collision with the standing locomotive.  
Type of train: the shunting operation.  
Location: Mělník station, the shunting district No. 2, km 372,189; a place of the collision: the station track No. 12, km 372,132.  
Parties: SŽDC, s. o. (IM);  
ČD Cargo, a. s. (RU of the shunting operation).  
Consequences: 3 injuries;  
total damage CZK 3 416 620,-

Direct cause:

- failure to stop the shunting operation before the end of the shunting route.

Contributory factors:

- movement of the shunting operation to the shunting district No. 2, without the instruction from the shunting supervisor of reserve Z 2;
- failure to ensure timely transference of instructions to stop the shunting operation in front of the switch No. 26 by the shunting supervisor of reserve Z 2 while driving.

Contributory factors of the collision:

- failure to observe condition for running at sight by the driver of the shunting operation;
- failure to ensure timely transference of instructions to stop the shunting operation by the shunting supervisor of reserve Z 2 when the shunting operation did not stop before the switch No. 26;
- the shunting supervisor's of reserve Z 1 unclear and incomprehensible message given over the radio, which evoked information about a position of the switch No. 26.

Underlying cause:

- failure to comply the technological procedures for shunting operation and radio communication, which were stipulated in the internal regulations of the IM, by the employees of the RU.

Root cause: none.

Recommendation:

Addressed to The Czech National Safety Authority (NSA):

- to focus on compliance with the rules for organization and carrying out of the shunting operations (including the radio communication) by the individual participating employees within security monitoring and its own control activities and also on the control activities of the IMs and RUs concerning this area;



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- to ensure that control activities of the compliance with the rules for organization and carrying out of the shunting operations (including the radio communication) executed by the participating infrastructure managers and railway undertakings will increase.



## **ACCIDENT SUMMARY**

- Grade: an accident.
- Date and time: 26<sup>th</sup> March 2018, 13.26 (11:26 GMT).
- Occurrence type: an accident to a person caused by a rolling stock in motion.
- Description: the collision of the long distance passenger train No. 1007 with the external worker.
- Type of train: the long distance passenger train No. 1007.
- Location: Rudoltice v Čechách station, the 1. station track, km 14,167.
- Parties: SŽDC, s. o. (IM);  
RegioJet, a. s. (RU of the long distance passenger train No. 1007);  
Chládek & Tintěra Pardubice, a. s. (a producer of a construction).
- Consequences: 1 fatality.
- Direct cause:
- realization of the maintenance work in the area of the runway track after the moment when the track possession was closed without securing of the workplace.
- Contributory factors:
- incomplete work on the column of the contact line No. 35 before the track possession was closed;
  - exceeding the set time of the track possession by 9 minutes;
  - improper organization of work by the IM and the external company and also dangerous way of closing of the track possession – the procedures for closing the track possession were in conflict with the established technological procedures.
- Underlying causes:
- entering the false time of finishing the maintenance work in the "B" command and in the Record of Instruction No. 1 to this command, and closing of the track possession of the contact line when the maintenance work on the track column which had been doing by the external worker were still in progress;
  - closing of the track possession without the probative transference of the safety information between the work leader and the responsible deputy of the client of the track possession about its closing;
  - failure to ensure the industrial safety of the employee who was working individually at the station track at the time when the track possession was closed.
- Root cause:
- an ambiguously defined procedure for the obligation to transfer information related to closing of the track possession demonstrably between the work leader and the responsible deputy of the client of the track possession because this procedure does not meet the requirements for the transference of the security information which means that the procedure is inconsistent with the relevant provisions of the IM's Safety Management System.

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Recommendation:

Addressed to The Czech National Safety Authority (NSA):

using its powers to ensure at the IM (Správa železniční dopravní cesty, s.o.) and at other IMs on the railways:

- 1) to add clear rules for the probative transference of the information related to the closing of the track possession between the work leader and the responsible deputy of the client of the track possession into the technological procedures;
- 2) to create uniform patterns for documenting and for transference of the security information, to determine the archiving time and to determine elements which must the security information about closing of the track possession contain when it is transferred between:
  - the organizational representative of the producer, the track possession work leader and the responsible deputy of the client of the track possession;
  - the sequence control officer and the responsible deputy of the client of the track possession.
- 3) to always stipulate the conditions for executing inspections by the client (the IM) at the field of health and safety protection at work and the all relevant provisions of the legislation and the technological procedures of the IM into the contracts, in relation to the risks, the nature and the extent (length) of ordered (done) work, and to subsequently execute such inspections, to document them properly, to evaluate them immediately and to adopt effective measures.



## **ACCIDENT SUMMARY**

- Grade: an incident.
- Date and time: 29<sup>th</sup> April 2018, 17:32 (15:32 GMT).
- Occurrence type: a train derailment.
- Description: an unsecured ride with the consequent derailment of the regional passenger train No. 8532 at the switch No. 1sv, which was not correctly switched in the preferred position.
- Type of train: the regional passenger train No. 8532.
- Location: Lhotka u Mělníka operational control point, the switch No. 1sv, km 10,598.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 8532).
- Consequences: 0 fatality, 0 injury;  
total damage CZK 1 000 460,-
- Direct cause:
- the train driver's failure to obey the instruction of the IM given by the signal device Sv1 before his entering at the self-returning switch No. 1sv.
- Contributory factor: none.
- Underlying cause:
- the train driver's failure to comply the technological procedures of the RU/IM when the train driver did not observe the signal at the signal device Sv1 and he did not stop before the self-returning switch No. 1sv and also his failure to check the correct position of the switch.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- to consider addition the self-returning switches to the active signal „Driving safe” with an active alert signal to prohibit following ride in cases when the switch is not in the final preferred position for the IMs of the self-returning switches.

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## **ACCIDENT SUMMARY**

Grade: serious accident.

Date and time: 3<sup>rd</sup> May 2018, 8:37 (6:37 GMT).

Occurrence type: train collision.

Description: the unauthorized movement of the regional passenger train No. 8102 behind the signal device L1 and the consequent collision with the regional passenger train No. 8103 and its derailment.

Type of train: the regional passenger train No. 8102;  
the regional passenger train No. 8103.

Location: place of the unauthorized movement – Křemže station, the signal device L1, km 13,712; place of the train collision – an open line between Křemže and Boršov nad Vltavou stations, km 12,286.

Parties: SŽDC, s. o. (IM);  
GW Train Regio a. s. (RU of the regional passenger trains No. 8102 and 8103).

Consequences: 18 injuries;  
total damage CZK 23 631 902,-

Direct cause:

- an operational error of the train driver of the regional passenger train No. 8102, he did not respect the signal „STOP” of the signal device L1 at Křemže station.

Contributory factors of the trains collision:

- operating the rolling stocks without a radio terminal which is fully compatible and cooperating in all functions with the infrastructure part of the used train radio equipment (on the basis of an exception granted by the Czech legislation);
- failure to send the „GENERAL STOP” command of the TRS radio system to the entire area controlled by the station dispatchers of the remotely operated station interlocking equipment of Kájov station when the train collision threatened, this command would have had a guaranteed reach on the regional passenger train No. 8103.

Underlying cause:

- failure to comply the technological procedures of the IM and RU by the train driver of the regional passenger train No. 8102.

Root cause: none.

Recommendation:

Addressed to The Czech National Safety Authority (NSA):

- to ensure an early warning about the exemption expiration specified in the Decree No. 173/1995 Coll. and about the obligation of the RUs to operate the rolling stocks which will be equipped with a compatible functional mobile part of the radio equipment with the operated track part of the train radio system serving to ensure railway transport control and also for transmission of commands, signals, messages or data transfer on the lines or on the part of the line with the operated trackside part of the train radio system and then to check and subsequently to supervise performance of the above mentioned obligation;

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- to ensure that the above mentioned rolling stocks will be also equipped with an active external module „STOP“, which will enable to stop the train without the need for cooperation between a person entering the „STOP“ or „GENERAL STOP“ command and a person driving the railway vehicle and subsequently to ensure the supervision of performance of the above mentioned obligation (after the exemption expiration specified in the Decree No. 173/1995 Coll.).



## **ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	11 <sup>th</sup> June 2018, 14:30 (12:30 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 7909 with a car at the level crossing.
Type of train:	regional passenger train No. 7909.
Location:	open line between Lochovice and Jince stations, the level crossing No. P551, km 87,149.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 7909); driver of the car (level crossing user).
Consequences:	1 fatality, 0 injury; total damage CZK 512 420,-
Direct cause:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and the visual and acoustic warnings were being given.</li></ul>
Contributory factor:	none.
Underlying causes:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning of the level crossing safety equipment;</li><li>• driver's behavior in front of the level crossing, the driver was not careful enough.</li></ul>
Root cause:	none.
Recommendation:	
Addressed to The Czech National Safety Authority (NSA):	<ul style="list-style-type: none"><li>• it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of railway tracks and the level crossings;</li><li>• change of the level crossing system of the level crossing No. P551 to a level crossing system equipped with barriers, which from the point of view as an optical barrier will reduce probability of the driver's entrance at the level crossing when a driver does not respond to the light and acoustic warning of the level crossing safety equipment.</li></ul>



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## **ACCIDENT SUMMARY**

Grade:	serious accident.
Date and time:	29 <sup>th</sup> June 2018, 12:39 (10:39 GMT).
Occurrence type:	trains collision.
Description:	collision of the tram No. 16 with standing tram No. 22.
Type of train:	tram train No. 16; tram train No. 22.
Location:	Prague, tram track between Štěpánská and Karlovo náměstí tram stops.
Parties:	Dopravní podnik hlavního města Prahy, a. s. (IM and RU of the trams No. 16 and 22)
Consequences:	25 injuries; total damage CZK 44 000 000,-
Direct cause:	<ul style="list-style-type: none"><li>• failure to adjust the driving conditions for running on sight, weight, driving and braking attributes of the tram No. 16 by the tram driver.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• failure to compliance of the technological procedures of the IM/RU for driving between two consecutive tram trains, eventually for driving behind non-rail vehicles.</li></ul>
Root cause:	none.
Recommendation:	not issued.



**ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	1 <sup>st</sup> July 2018, 9:06 (7:06 GMT).
Occurrence type:	an unsecured movement.
Description:	the unsecured movement of the regional passenger train No. 1724 with the consequent ride into the train route of the regional passenger train No. 1721.
Type of train:	the regional passenger trains No. 1724 and 1721.
Location:	Veselí nad Moravou station, the track line No. 1, departure signal device L1, km 87,324.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger trains No. 1724 and 1721).
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none"><li>the incorrectly made train route for the regional passenger train No. 1724.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>inattention and the incorrect procedure of the signalman during making the train route for the regional passenger train No. 1724.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	16 <sup>th</sup> July 2018, 9:48 (7:48 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 3800 with a van at the level crossing.
Type of train:	the regional passenger train No. 3800.
Location:	open line between Kamenný Újezd u Českých Budějovic and Včelná stations, level crossing No. P5577, km 108,734.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the passenger train No. 3800); driver of the van (level crossing user).
Consequences:	1 fatality; total damage CZK 3 101 000,-
Direct cause:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.</li></ul>
Contributory factor:	none.
Underlying causes:	<ul style="list-style-type: none"><li>• driver's failure to respect of the light and sound warning and ride at the level crossing at the time when it was forbidden;</li><li>• behavior of the driver in front of the level crossing, the van driver wasn't careful enough.</li></ul>
Root cause:	none.
Recommendation:	
Addressed to The Czech National Safety Authority (NSA):	<ul style="list-style-type: none"><li>• it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;</li><li>• it is recommended to take own measure for change the level crossing system of the level crossing No. P5577 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment;</li><li>• it is recommended to take measure for ensure visibility of warning state of level crossing safety equipment of level crossing No. P5577 to the appropriate distance from all roads.</li></ul>

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**ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	18 <sup>th</sup> July 2018, 5:39 (3:39 GMT).
Occurrence type:	unsecured movement.
Description:	unsecured movement of the long distance passenger train No. 1101 to station track No. 1, which was occupied by the regional passenger train No. 6000.
Type of train:	the long distance passenger train No. 1101; the regional passenger train No. 6000.
Location:	Svor station, entrance signal device S, km 62,941.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the long distance passenger train No. 1101 and the regional passenger train No. 6000);
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none"><li>• allow to entrance of the long distance passenger train No. 1101 by incorrectly made train route to station track No. 1, which was occupied by the regional passenger train No. 6000.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• absence of a mechanism or other person, who prevents or reduces the human factor failure of the individual during preparation of the train route.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• human factor failure, non-compliance of technological procedures of the IM, failure to putting the station interlocking equipment to basic state after the traffic closure and subsequent routine adjustment of the entry signal device to the signal allowing the ride, even though the train route was made to incorrect station track.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	serious accident.
Date and time:	20 <sup>th</sup> July 2018, 11:11 (9:11 GMT).
Occurrence type:	trains collision.
Description:	collision of the shunting operation with the regional passenger train No. 4615.
Type of train:	the regional passenger train No. 4615; shunting operation.
Location:	Brno hl. n. station, station track No. 1, km 143,488.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the shunting operation and the regional passenger train No. 4615).
Consequences:	7 injuries; total damage CZK 63 330,-
Direct cause:	<ul style="list-style-type: none"><li>• failure to comply with conditions for running on sight during the shunting operation.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• insufficient instructions for ensure safety the shunting operation by the supervisor of shunting operation.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• failure to comply with the technological procedures of the IM/RU for shunting operation by the supervisor of shunting operation.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	20 <sup>th</sup> July 2018, 22:59 (20:59 GMT).
Occurrence type:	trains collision.
Description:	collision of the set train No. 21920 with the freight train No. 61400.
Type of train:	the set train No. 21920; the freight train No. 61400.
Location:	open line between Chrást u Plzně and Plzeň hlavní nádraží stations, track line No. 2, km 107,883.
Parties:	SŽDC, s. o. (IM); ČD Cargo, a. s. (RU of the freight train No. 61400); České dráhy, a. s. (RU of the set train No. 21920).
Consequences:	0 fatality, 0 injury; total damage CZK 26 770,-
Direct cause:	<ul style="list-style-type: none"><li>failure to stop of the set train No. 21920 in front of the freight train No. 61400 at movement under condition for running on sight in occupied block section of the automatic block.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>failure to observe the technological procedures of the IM for condition for running on sight by train driver of the set train No. 21920.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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### **ACCIDENT SUMMARY**

Grade: an accident.

Date and time: 26<sup>th</sup> July 2018, 2:36 (0:36 GMT).

Occurrence type: an injury of the RU's employee.

Description: the injury of the train driver of the train No. 476 - electric shock from the train heating socket.

Type of train: the long distance passenger train No. 476.

Location: Brno hl. n. station, the track No. 3, km 143,500.

Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the long distance passenger train No. 476).

Consequences: 1 injury;  
total damage CZK 49 065,-

Direct cause: the train driver of the train No. 476 unauthorizedly manipulated with the train heating socket of the locomotive 380.013-3 which was in "active shutdown" mode.

Contributory factor: none.

Underlying cause: the train driver's negligence during inspecting the locomotive when boarding a train No. 476.

Root cause: none.

Recommendation: not issued.



## **ACCIDENT SUMMARY**

Grade: serious accident.  
Date and time: 31<sup>st</sup> July 2018, 13:33 (11:33 GMT).  
Occurrence type: level crossing accident.  
Description: collision of the regional passenger train No. 8409 with the tractor with the trailer.  
Type of train: regional passenger train No. 8409.  
Location: open line between Putim and Písek stations, level crossing No. P483, km 10,934.  
Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 8409);  
driver of the tractor (level crossing user).  
Consequences: 6 injuries;  
total damage CZK 13 960 000,-

Direct cause:

- standing of the tractor at the railway loading gauge and the dangerous area of the level crossing No. P483 at the time of movement of the regional passenger train No. 8409 and visual and acoustic warnings were being given.

Contributory factor: none.

Underlying cause:

- behavior of the tractor driver in front of the level crossing – he wasn't careful enough.

Root cause: none.

Recommendation:

Addressed to The Czech National Safety Authority (NSA):

- it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;
- it is recommended to take own measure for change the level crossing system of the level crossing No. P483 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing even if the driver responds to the visual and acoustic warning given by the level crossing safety equipment but driver stops in the dangerous zone of the level crossing and part of vehicle reaches to the railway loading gauge.

Addressed to the Municipal Authority of Písek as the Road Administration Office in cases of the local streets:

- to ensure that the traffic signs (in front of the level crossing No. P483) were add to some of the visible lane marking symbols, which are transverse line continuous No. V 5 (stop line), visual psychological brake No. V 18 or symbol of warning cross (horizontal symbol of road sign No. A 32).

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**ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	1 <sup>st</sup> August 2018, 8:46 (6:46 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the long distance passenger train No. 1540 with a car at the level crossing.
Type of train:	passenger train No. 1540.
Location:	open line between Kamenný Újezd u Českých Budějovic and Včelná stations, level crossing No. P5577, km 108,734.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the long distance passenger train No. 1540); driver of the car (level crossing user).
Consequences:	1 fatality; total damage CZK 303 345,-
Direct cause:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning of the level crossing safety equipment;</li><li>• driver's behavior in front of the level crossing, the driver was not careful enough.</li></ul>
Root cause:	none.
Recommendation:	not issued.

NIB does not issue a safety recommendation in this case, however due to repetition of the similar accidents with tragic consequences at the level crossing No. P5577 equipped by level crossing safety equipment without barriers, in a short time period, NIB refers to the safety recommendation issued in final report ref. No. 6-2528/2018/DI to accident from 16<sup>th</sup> July 2018.



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**ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	15 <sup>th</sup> August 2018, 12:02 (10:02 GMT).
Occurrence type:	a train derailment.
Description:	the derailment of four rolling stocks of the freight train No. 56118.
Type of train:	the freight train No. 56118.
Location:	Praha-Vršovice marshalling yard, km 1,992.
Parties:	SŽDC, s. o. (IM); ČD Cargo, a. s. (RU of the freight train No. 56118);
Consequences:	0 fatality, 0 injury; total damage CZK 910 052,-
Direct cause:	<ul style="list-style-type: none"><li>• break of the main leaf spring of the left wheel of the 1<sup>st</sup> axle of the rolling stock No. CZ-COAL 84 54 6680 739-1, which was resulting in the loss of the vertical wheel force of the respective wheel.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• failure to secure maintenance in the range, that ensures the appropriate technical condition of the rolling stock No. CZ-COAL 84 54 6680 739-1 all the time when it is used in the rail transport operation.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: accident.
- Date and time: 16<sup>th</sup> August 2018, 18:56 (16:56 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the regional passenger train No. 7912 with the tractor with the trailer and consequent derailment at level crossing No. P491.
- Type of train: the regional passenger train No. 7912.
- Location: Čížová station, level crossing No. P491, km 20,786.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 7912);  
driver of the tractor (level crossing user).
- Consequences: 1 injury;  
total damage CZK 2 868 000,-
- Direct cause:
- driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.
- Contributory factor: none.
- Underlying cause:
- driver's failure to respect of the light and sound warning and ride at the level crossing at the time when it was forbidden;
  - behavior of the driver in front of the level crossing, the tractor driver wasn't careful enough.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers;
  - it is recommended to take own measure for change the level crossing system of the level crossing No. P491 to a level crossing system equipped with barriers, which from the point of view of the optical barrier, will reduce the probability of the driver's entrance to the railway crossing if a driver does not respond to the light and acoustic warning of the crossing safety equipment.

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**ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	17 <sup>th</sup> August 2018, 17:46 (15:46 GMT).
Occurrence type:	train derailment.
Description:	unsecured movement of the freight train No. 81013 with consequent derailment of one rolling stock.
Type of train:	freight train No. 81013.
Location:	Rýmařov operating control point, switch No. 8, km 14,211.
Parties:	SŽDC, s. o. (IM); ČD Cargo, a. s. (RU of the freight train No. 81013).
Consequences:	0 fatality, 0 injury; total damage CZK 125 780,-
Direct cause:	<ul style="list-style-type: none"><li>• movement of the freight train No. 81013 through the switch No. 8, which was not properly set at the departure time of the train.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• failure to detect the actual position of the last rolling stock of the freight train No. 81013 which stood in the area of the switch No. 8 and in front of its beginning.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• movement of the freight train No. 81013 through the unsecured switch No. 8 which was not equipped with a mechanical lock to cover it and therefore it mustn't be traveled by the train.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: a serious accident.
- Date and time: 7<sup>th</sup> September 2018, 20:49 (18:49 GMT).
- Occurrence type: a train derailment.
- Description: the derailment of the last five rolling stocks of the train set No. 10220.
- Type of train: the train set No. 10220.
- Location: Kolín station, the switch No. 169 part „a“, km 298,425.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the train set No. 10220).
- Consequences: 0 fatality, 0 injury;  
total damage CZK 18 090 000,-
- Direct cause:
- a fracture of the locking hook and opening of the unheld switch tongue of the switch No. 169 part „a“ from the stock rail while the train No. 10220 was moving over the switch.
- Contributory factor: none.
- Underlying causes:
- the creation and gradual development of the partial fatigue cracks at the point of the reduction of the bearing cross-section of the locking hook of the jaw point lock, caused by the structural notches and structural inhomogeneities leading to a total fracture under long-term non-standard and variable external forces application on the locking hook of the jaw point lock;
  - long-term, non-standard and variable application of the switch components on the jaw point lock elements of the switch No. 169 part „a“, under heavy traffic load by the railway vehicles were moving over the switch;
  - failure to detect the fatigue cracks when exercising controls in accordance with the procedures of the IM.
- Root cause: none.
- Recommendations:
- Addressed to The Czech national Safety Authority (NSA):
- as part of its activities as a national safety authority, we recommend that the NSA verify the overall technical condition of the switch No. 169 part „a“ at Kolín station and the technical condition of the related jaw point locks and in case a non-standard contact of the locking hook with the stock rail foot is detected then this situation should be solved in common with the switch operator and the manufacturers of the devices;
  - as part of its activities as the national safety authority, we recommend that the NSA adopt measures to ensure that the infrastructure manager SŽDC:
    1. will require a comprehensive assessment and evaluation of all main factors which may have an impact on the fatigue strength and life (e. g. material, surface, shape, technology, operating load and conditions, etc.) from their manufacturers using the advanced analytical and numerical methods and modeling to select the element with the best fatigue rating (e. g. design for permanent strength), on condition that any



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other technical and design parameters, problems and constraints will not resist the choice of this solution; this should be made always before the new components of the switch and the point lock, on which the safety of the guided transport operating directly depends, will be put into operation;

2. will ensure that only the locking hooks which will be modified according to the previous point – so that their parameters in terms of fatigue properties will be improved – will be used at the internal tongues of the diamond crossings with slips and similar types of the locking hooks used in the jaw point locks for the swing crossing noses in case the jaw locking hooks are newly assembled into the diamond crossings with slips and the swing crossing noses;
  3. will ensure that the one-time control of all diamond crossings with slips and swing crossing noses with the jaw locks (approx. 122 pcs) will be exercised. The control will be focused on the condition of the locking hooks used at the internal tongues of diamond crossings with slips and the similar types of the locking hooks used in the jaw point locks for the swing crossing noses. The top wall of these locking hooks should be controlled for cracks at least visually during this control. At the same time it should be controlled even when these locking hooks do not appear to be violently damaged. In the case that there any locking hook with cracks is found during the one-off control, it is necessary to ensure the safety at the site;
  4. will ensure that the violently damaged locking hooks used at the internal tongues of the diamond crossings with slips and the similar types of the locking hooks used in the jaws point locks for the swing crossing noses will be replaced for the locking hooks which will be structurally modified according to the point 1 (so that their parameters in terms of fatigue properties will be improved), preferably in the switches which are heavily loaded with traffic and which allow the moving of the rolling stocks at higher speeds. This should be based on the evaluation and results of the one-off control in accordance with the previous paragraph;
  5. will consider the possible addition of the set system for checking the switches and point locks on the basis of the evaluation and results of the one-off control according to the point 3 and eventually will consider that the till then used locking hooks at internal tongues of the diamond crossings with slips and similar types of the locking hooks used in the jaw point locks for the swing crossing noses should be replaced for those locking hooks which are structurally modified according to the point 1 (when their fatigue parameters will be improved);
- we recommend that the NSA adopt own measures to ensure the implementation of the above safety recommendations for other IMs in the Czech Republic.

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## **ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	18 <sup>th</sup> September 2018, 8:04 (6:04 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 9705 with a lorry at the level crossing No. P2114.
Type of train:	the regional passenger train No. 9705.
Location:	Kralupy nad Vltavou předměstí station, the level crossing No. P2114, km 0,263.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 9705); driver of the lorry (the level crossing user).
Consequences:	3 injuries; total damage CZK 3 431 500,-
Direct cause:	<ul style="list-style-type: none"><li>• a deadlock of the lorry in a structure gauge at the level crossing No. P2114, its failure to remove before arrival of the train and failure to warning of the train driver and IM from danger.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• failure to observe the track by the train driver and failure to stop the train in front of an obstacle in the structure gauge which was visible in time due to the train speed.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• a sudden and unexpected defect at braking system of the lorry.</li></ul>
Root cause:	none.

Recommendation:

Addressed to The Czech national Safety Authority (NSA) in cooperation with Ministry of Interior:

- to ensure the verification and eventual reevaluation the current system of cooperation between IMs and units of integrated rescue system at solving situations, when threatens danger in delay and it is necessary to adopt urgent measures for ensure safety guideway operating and guided transport operating so as to ensure that:
  - in the transmission of information will be a minimum number of intermediators at the configured system;
  - the preferred contact will be determined in such a way as to eliminate the possibility of confusion with other contacts;
  - the relevant data (telephone numbers) will be updated correctly, i.e. with regard to the setting of information systems of all parties, it will be ensured that at all level crossings will be imported correctly into these systems;
  - the reliability of the system will be regularly checked.

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## **ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	21 <sup>st</sup> September 2018, 7:27 (5:27 GMT).
Occurrence type:	an unauthorized movement.
Description:	the unauthorized movement of the long distance passenger train No. 883 behind the main signal device 1S with the consequent ride on the station line which was occupied by the freight train No. 57039.
Type of trains:	the long distance passenger train No. 883; the freight train No. 57039.
Location:	Štěpánov station, the main (entrance) signal device 1S, km 75,570.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the long distance passenger train No. 883); ČD Cargo, a. s. (RU of the freight train No. 57039).
Consequences:	0 fatality, 0 injury; total damage CZK 10 517,-
Direct cause:	<ul style="list-style-type: none"><li>• an operational error of the train driver of the long distance passenger train No. 883 – he did not respect signal „Stop” of the main (entrance) signal device 1S at Štěpánov station.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• absence of technical equipment which prevent a train from passing a signal in case of danger.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• mistakes of the train driver of the long distance passenger train No. 883 who because of impaired visibility (mist):<ul style="list-style-type: none"><li>◦ mistook the signal at the signal device of the automatic block 1-746 with the signal „Caution” for the main (entrance) signal device 1S;</li><li>◦ lost orientation in space and consequently failed to ascertain the signal „Stop” at the main (entrance) signal device 1S of Štěpánov station.</li></ul></li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	21 <sup>st</sup> September 2018, 21:34 (19:34 GMT).
Occurrence type:	trains collision.
Description:	collision of the shunting operation with a standing rolling stocks.
Type of train:	shunting operation.
Location:	České Budějovice station, track No. 6, km 213,369.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the shunting operation).
Consequences:	3 injuries; total damage CZK 1 272 570,-
Direct cause:	<ul style="list-style-type: none"><li>• failure to comply with condition for running on sight by train driver of the shunting operation.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• failure to compliance of technological processes of IM and RU for driving a locomotive by the train driver during a shunting operation.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	21 <sup>st</sup> September 2018, 19:14 (17:14 GMT).
Occurrence type:	collision with an obstacle.
Description:	collision of the regional passenger train No. 7424 with an obstacle – the fallen trees.
Type of train:	the regional passenger train No. 7424.
Location:	open line between Holýšov and Staňkov stations, km 146,658.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 7424).
Consequences:	0 fatality, 0 injury; total damage CZK 2 592 500,-
Direct cause:	<ul style="list-style-type: none"><li>• interference with the protection zone of the railway by the fallen trees which grew in the railway protective area in the impact distance from the protection zone of the railway.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• the weather conditions – a strong wind and heavy rain.</li></ul>
Underlying cause:	none.
Root cause:	none.
Recommendation:	

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

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

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**ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	24 <sup>th</sup> September 2018, 16:34 (14:41 GMT).
Occurrence type:	a train derailment.
Description:	the derailment of the freight train No. 89551 due to incorrectly performed rail joint.
Type of train:	the freight train No. 89551.
Location:	an open line between Chvatěruby and Úžice stations, km 3,857.
Parties:	SŽDC, s. o. (IM); UNIPETROL DOPRAVA, s.r.o. (RU of the freight train No. 89551); Skanska, a. s. (a producer of track possession work).
Consequences:	0 fatality, 0 injury; total damage CZK 96 479,-
Direct cause:	<ul style="list-style-type: none"><li>• movement of the train through the incorrectly performed rail joint of the used rail and the newly inserted rail.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• failure to comply the specified technological procedures of the IM, legislation and the reference technical standards for track line maintenance;</li><li>• failure to identify the incorrectly performed rail joint which did not guarantee safety and continuity of the running rail edges.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: incident.
- Date and time: 23<sup>rd</sup> October 2018, 8:57 (7:57 GMT).
- Occurrence type: unauthorized movement.
- Description: unauthorized movement of the regional passenger train No. 4807 behind the signal device S with consequent entry to the station track occupied by the regional passenger train No. 4806.
- Type of train: regional passenger trains No. 4807 and No. 4806.
- Location: Studenec station, entry signal device S, km 36,325.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger trains No. 4807 and 4806).
- Consequences: 0 fatality, 0 injury;  
total damage CZK 0,-
- Direct cause:
- failure to respect the signal „Stop" of the main (entry) signal device „S" to the Studenec station by the train driver of the regional passenger train No. 4807.
- Contributory factor:
- absence of technical equipment which prevents a train from passing a signal in case of danger.
- Underlying cause:
- inattention of the train driver of the regional passenger train No. 4807 while driving the locomotive and insufficient follow-up of guidance given to him by the IM through the independent warning signal „PřS" and the main signal device „S", due to probable manipulation with the service tablet while driving around the signal devices, as the train driver said in explanation.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- on the lines where the ETCS is not going to be introduced into operation to install the technical equipment for emergency stopping of trains. This equipment will be automatically activated when the rolling stock illegally passes signal at danger. To take own measure forcing implementation of the above recommendation for other infrastructure managers (IM) of nation-wide railway, respectively regional railway and railway undertakings (RU) in the Czech Republic.

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**ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	28 <sup>th</sup> October 2018, 14:16 (13:16 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 19418 with the car at the level crossing.
Type of train:	regional passenger train No. 19418.
Location:	open line between Brandýs nad Labem and Neratovice stations, level crossing No. P2753, km 10,693.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 19418); driver of the car (level crossing user).
Consequences:	1 fatality, 1 injury; total damage CZK 256 820,-
Direct cause:	<ul style="list-style-type: none"><li>• an unauthorized entrance of the car at the level crossing at the time when the train No. 19418 was arriving.</li></ul>
Contributory factor:	none.
Underlying causes:	<ul style="list-style-type: none"><li>• the entrance of the car at the level crossing at the time when the arriving train could be visible and hear its hooting or whistling;</li><li>• behavior of the driver in front of the level crossing, the car driver was not careful enough and didn't make sure whether he can safely pass the level crossing.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	5 <sup>th</sup> November 2018, 14:43 (13:43 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 5432 with a car at the level crossing.
Type of train:	the regional passenger train No. 5432.
Location:	open line between Turnov and Sychrov stations, level crossing No. P3096, km 127,065.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 5432); the car driver (a level crossing user).
Consequences:	1 fatality; total damage CZK 135 994,-
Direct cause:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and the visual and acoustic warnings were being given.</li></ul>
Contributory factor:	none.
Underlying causes:	<ul style="list-style-type: none"><li>• driver's failure to respect the light and acoustic warning of the level crossing safety equipment;</li><li>• driver's behavior in front of the level crossing, the driver was not careful enough.</li></ul>
Root cause:	none.
Recommendations:	
Addressed to The Czech National Safety Authority (NSA):	<ul style="list-style-type: none"><li>• it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only the level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of the railway tracks and the level crossings;</li><li>• it is recommended to adopt own measure for change of the level crossing system of the level crossing No. P3096 to a level crossing system equipped with barriers, which from the point of view as an optical barrier will reduce probability of the driver's entrance at the level crossing when a driver does not respond to the light and acoustic warning of the level crossing safety equipment.</li></ul>

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**ACCIDENT SUMMARY**

Grade:	serious accident.
Date and time:	15 <sup>th</sup> November 2018, 22:19 (21:19 GMT).
Occurrence type:	the uncontrolled movement.
Description:	uncontrolled (spontaneous) movement of the detached electric multiple-unit train ETR521 „HITACHI Caravaggio“ with consequent collision with an oncoming shunting operation.
Type of train:	the electric multiple-unit train ETR521 „HITACHI Caravaggio“; the shunting operation.
Location:	Cerhenice railway test circuit, district of service and storage tracks, track No. 3, km 0,715; place of the collision – tracks No. 3 and 5, in front of the switch No. 11, km 0,731.
Parties:	Výzkumný Ústav Železniční, a. s. (IM and RU of the electric multiple-unit train ETR521 „HITACHI Caravaggio“ and shunting operation); Hitachi Rail Italy, S. p. A. (owner and holder of the electric multiple-unit train ETR521 „HITACHI Caravaggio“).
Consequences:	0 fatality, 0 injury; total damage CZK 5 498 790,-
Direct cause:	<ul style="list-style-type: none"><li>• unsecuring of the electric multiple-unit train ETR521 „HITACHI Caravaggio“ against unwanted movement.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• inattention during detachment of the electric multiple-unit train ETR521 „HITACHI Caravaggio“ by the shunting supervisor.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: a serious accident.
- Date and time: 18<sup>th</sup> November 2018, 21:28 (20:28 GMT).
- Occurrence type: a train derailment.
- Description: the derailment of one rolling stock of the freight train No. 52918 at Studénka station.
- Type of train: the freight train No. 52918.
- Location: Studénka station, the switch No. 33, km 244,218.
- Parties: SŽDC, s. o. (IM);  
Advanced World Transport, a. s. (RU of the freight train No. 52918).
- Consequences: 0 fatality, 0 injury;  
total damage CZK 5 013 500,-
- Direct cause:
- releasing the connection between the left wheel tyre and the wheel rim of the 1<sup>st</sup> axle of the rolling stock No. CZ-AWT 88 54 9200 105-6 with simultaneous destruction of the buckling ring and the tyre part.
- Contributory factor: none.
- Underlying cause:
- gradual deformation of the contact surface of the left wheel tyre of the 1<sup>st</sup> axle during using the rolling stock No. CZ-AWT 88 54 9200 105-6 caused by the tyre material which did not meet the specified parameters.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- it is recommended to adopt own measure to ensure executing a one-off inspection of the wheel tyres of the rolling stocks used by all RUs within the EU Member States, whether they originate from melt No. 33049 produced by the manufacturer of the railway wheelsets Huta Gliwice. When this tyre is detected, to ensure that effective measure will be adopted to prevent derailment of the rolling stock.

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## **ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	20 <sup>th</sup> November 2018, 4:54 (3:54 GMT).
Occurrence type:	trains collision.
Description:	unauthorized movement of the freight train No. 49745 behind the main (automatic block section) signal device 1-3218 with consequent collision with the freight train No. 49735.
Type of train:	the freight train No. 49745; the freight train No. 49735.
Location:	open line between Chotěbuz junction point and Český Těšín station, place of the unauthorized movement – the main (automatic block section) signal device 1-3218, km 321,783; place of the trains collision – km 320,914.
Parties:	SŽDC, s. o. (IM); ČD Cargo, a. s. (RU of the freight trains).
Consequences:	0 fatality, 0 injury; total damage CZK 395 450,-
Direct cause:	<ul style="list-style-type: none"><li>operational error of the freight train No. 49745 train driver – he did not respect the signal “Stop” of the main (automatic block section) signal device 1-3218.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>absence of technical equipment which prevents a train from passing a signal in case of danger.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>a mistake (error) of the train driver of the freight train No. 49745 who thought that he should go on track line No. 1, in the open line section Louky nad Olší – Český Těšín, i.e. also in the block section Chotěbuz junction point – Český Těšín, although the written order (which he received) did not contain any such instruction (information).</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: an incident.
- Date and time: 21<sup>st</sup> November 2018, 22:32 (21:32 GMT).
- Occurrence type: a train derailment.
- Description: the derailment of the shunting operation.
- Type of train: the shunting operation.
- Location: Strakonice station, the switch No. 36, km 272,794.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the shunting operation).
- Consequences: 0 fatality, 0 injury;  
total damage CZK 4 953 972,-
- Direct cause:
- one-sided dip of the tractive effort transmission equipment below the top of the rail head.
- Contributory factor: none.
- Underlying cause:
- broken front connecting rod of the tractive effort transmission equipment in the weld between the eye and the connecting rod body.
- Root cause: none.
- Recommendation:
- Addressed to The Czech National Safety Authority (NSA):
- to adopt own measure to ensure at the RU České dráhy, a. s.:
    - the top limit of the interval for kilometric run for the periodic higher repairs will be defined in the Annex 1 of the internal regulation ČD V 25;
    - the wording of the article No. 20 in the internal regulation ČD V 25 will be changed to define the top limit of the interval for kilometric run for the periodic higher repairs;
  - to adopt own measure to ensure for all RUs in the Czech Republic operating locomotives of the 230, 240 and 242 series:
    - the one-off control will be executed and it will be focused on the technical condition of the front connecting rods, namely the weld area between the eye and the connecting rod body;
    - the regular controls – not only the defectoscopic control of the end pin of the front connecting rods of the tractive effort transmission equipment, but also the defectoscopic control of the weld between the eye and the connecting rod body – will be executed over the locomotives of the series mentioned above.

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**ACCIDENT SUMMARY**

Grade:	serious accident.
Date and time:	22 <sup>nd</sup> November 2018, 13:57 (12:57 GMT).
Occurrence type:	trains collision.
Description:	collision of the tram No. 17/29 with the tram No. 17/3.
Type of train:	tram No. 17/29; tram No. 17/3.
Location:	Prague, tram track between Palackého náměstí and Jiráskovo náměstí tram stops.
Parties:	Dopravní podnik hlavního města Prahy, akciová společnost (IM and RU of the trams).
Consequences:	11 injuries; total damage CZK 1 950 000,-
Direct cause:	<ul style="list-style-type: none"><li>• failure to adjust the driving to conditions for running on sight and failure to comply a safe distance between two trams.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• incorrect evaluation or non-evaluation of mental or physical fatigue and failure to take measures to ensure of safety.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• failure to comply of technological procedures of the IM/RU for driving between two consecutive trams, eventually for driving behind non-rail vehicles.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	11 <sup>th</sup> December 2018, 8:20 (7:20 GMT).
Occurrence type:	trains collision.
Description:	collision of the regional passenger train No. 7023 with the freight train No. 87001.
Type of train:	the regional passenger train No. 7023; the freight train No. 87001.
Location:	Karlovy Vary dolní nádraží station, switch No. 23, km 53,493.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 7023); ČD Cargo, a. s. (RU of the freight train No. 87001).
Consequences:	0 fatality, 0 injury; total damage CZK 1 593 243,-
Direct causes:	<ul style="list-style-type: none"><li>• annulment of train route of the freight train No. 87001 by train dispatcher previously than it was release all switches and rear fouling point indicator at train route;</li><li>• allow to entrance of the regional passenger train No. 7023 by train dispatcher although train route was not free.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• unauthorized switching of the switch No. 23, occupied of rolling stock, by switch-woman/signal-woman.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• failure to comply the technological procedures of IM during finding out of unoccupied and setting train route for the regional passenger train No. 7023.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	accident.
Date and time:	13 <sup>th</sup> December 2018, 13:14 (12:14 GMT).
Occurrence type:	an accident to a person caused by a rolling stock in motion.
Description:	jumping out of a passenger from the moving long distance passenger train No. 888.
Type of train:	the long distance passenger train No. 888.
Location:	open line between Třebovice v Čechách and Česká Třebová stations, track line No. 2, km 2,737.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the long distance passenger train No. 888).
Consequences:	1 fatality.
Direct cause:	<ul style="list-style-type: none"><li>• the passenger jumped out from the moving long distance passenger train No. 888.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• psychic strain of the passenger due to conflict with other passengers and subsequent activation of the Police of the Czech Republic to solve the situation.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• risky behavior of the passenger, consisting in intentional manipulation with the controls for the emergency door opening while movement of the long distance passenger train No. 888.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	9 <sup>th</sup> January 2019 9:01 (8:01 GMT).
Occurrence type:	an uncontrolled movement.
Description:	the unsecured ride of the regional passenger train No. 5935 from Leština u Světlé station and its consequent unauthorized movement behind the signal “Stop” onto the excluded first track line in the direction to Světlá nad Sázavou station and through the open level crossing No. P3696,
Type of train:	the regional passenger train No. 5935.
Location:	Leština u Světlé station, the station track No. 1, km 251,017.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the passenger train No. 5935).
Consequences:	0 fatality, 0 injury; total damage CZK 0,-.
Direct cause:	<ul style="list-style-type: none"><li>the train route for the train No. 5935 was made from Leština u Světlé station towards to Světlá nad Sázavou station onto the excluded first track line.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>non-use of the prescribed mechanical tool which ensures impossibility of the improper operation (unwilling or erroneous pressing or pulling up) of the button on the control desk of the station interlocking equipment by the dispatcher of Leština u Světlé station at the time of the track possession.</li></ul>
Contributory factor of the continue incident action:	<ul style="list-style-type: none"><li>failure of the train driver of the train No. 5935 to respond to the signal “Stop” given by the portable protection signal and the following continuous ride of the train No. 5935 onto the excluded first track line through the open level crossing No. P3696.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>failure to comply with the technological procedures of the IM by the station dispatcher of Leština u Světlé station, which determine the obligation to ensure the controlling elements by the mechanical tool (covering up the buttons of the route setting and manual point switch by the red cups), so that the ride of the rolling stocks could not be allowed onto the excluded track, during the track possession.</li></ul>
Root cause:	none.
Recommendation:	not issued.



## **ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	10 <sup>th</sup> January 2019, 6:34 (5:34 GMT).
Occurrence type:	collision of the train with the railway technical device (buffer stop).
Description:	unauthorized movement of the regional passenger train No. 1997 behind the main (route) signal device Lc 102, consequent collision with a buffer stop, derailment and collision with an equipment of the station.
Type of train:	regional passenger train No. 1997.
Location:	Liberec station, station track No. 102, main (route) signal device Lc102, km 160,256; place of the collision with the buffer stop – at the end of the station track No. 102, km 160,264 <sup>5</sup> .
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 1997).
Consequences:	0 fatality, 0 injury; total damage CZK 553 761,-
Direct cause:	<ul style="list-style-type: none"><li>• failure to respect the signal „Stop“ of the main (route) signal device Lc102 at Liberec station by the train driver of the regional passenger train No. 1997.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• absence of technical equipment which prevents a train from passing a signal in case of danger.</li></ul>
Underlying causes:	<ul style="list-style-type: none"><li>• inappropriate driving style and inattention of the train driver of the regional passenger train No. 1997, who:<ul style="list-style-type: none"><li>◦ did not implement the operating braking at the latest at the area of the main (route) signal device Lc2 at Liberec station so that he did not have to use the train's maximum braking power to stop the train in degraded weather conditions;</li><li>◦ did not implement the train braking in time for the train to stop safely at the end of the train route, at the time of the movement along the station track No. 102 at Liberec station.</li></ul></li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	18 <sup>th</sup> January 2019, 13:49 (12:49 GMT).
Occurrence type:	uncontrolled movement.
Description:	uncontrolled movement of two detached rolling stocks.
Type of train:	two detached rolling stocks.
Location:	Chodov station, km 21,420 – place of beginning uncontrolled movement; open line between Chodov and Karlovy Vary stations, km 188,828 – place where the rolling stocks stopped (it was 7.177 kilometers from beginning uncontrolled movement).
Parties:	SŽDC, s. o. (IM); ČD Cargo, a. s. (RU of the detached rolling stocks).
Consequences:	0 fatality, 0 injury; total damage CZK 34 743,-
Direct cause:	<ul style="list-style-type: none"><li>insufficient securing of detached rolling stocks against uncontrolled movement.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>failure to comply of the technological procedures of the IM and RU during detaching of the rolling stocks.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	27 <sup>th</sup> January 2019, 5:51 (4:51 GMT).
Occurrence type:	train derailment.
Description:	collision of the regional passenger train No. 21240 with a broken tree branch with consequent derailment while driving back through the switch Sv7.
Type of train:	regional passenger train No. 21240.
Location:	Lovětín operating control point, km 7,740 (place of the train collision with a broken tree branch respectively beginning of the train unsecured movement ), km 7,720 (place of train derailment).
Parties:	Jindřichohradecké místní dráhy, a. s. (IM and RU of the regional passenger train No. 21240).
Consequences:	0 fatality, 0 injury; total damage CZK 0.
Direct cause:	<ul style="list-style-type: none"><li>• unauthorized change of direction of the regional passenger train No. 21240 movement after a previous stop in the area of the switch Sv 7 with turned on self-returning activity.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• failure to completion of the regional passenger train No. 21240 ride through the switch Sv 7 with turned on self-returning activity from the track on which is not the switch rebuilt in the preferred position, due to an obstacle in the traffic route – broken tree branch, which it not allowed ride of train in original direction.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• failure to compliance of the technological procedures of the IM and RU by the train driver related with wrongly evaluation incurred situation after collision of the regional passenger train No. 21240 with a broken tree branch.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	incident.
Date and time:	15 <sup>th</sup> February 2019, 4:49 (3:49 GMT).
Occurrence type:	train derailment.
Description:	derailment of one rolling stock of the regional passenger train No. 21221.
Type of train:	the regional passenger train No. 21221.
Location:	Kamenice nad Lipou operating control point, switch No. 2, km 20,244.
Parties:	Jindřichohradecké místní dráhy, a. s. (IM and RU of the regional passenger train No. 21221).
Consequences:	0 fatality, 0 injury; total damage CZK 53 809,-
Direct cause:	<ul style="list-style-type: none"><li>• not remove of device for securing the rolling stock against uncontrolled movement – the rail skate from the rail before the movement of the rolling stocks of the regional passenger train No. 21221.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>• failure to technological procedures of the IM and RU.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	19 <sup>th</sup> February 2019, 9:13 (8:13 GMT).
Occurrence type:	an unsecured movement.
Description:	the unsecured movement of the regional passenger train No. 24948 without the train driver.
Type of train:	the regional passenger train No. 24948.
Location:	an open line between Velké Meziříčí and Křižanov stations, km 28,196.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 24948).
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none"><li>improper handling with the air valves of the brake system while removal of defect of the accumulator switching brake.</li></ul>
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none"><li>failure to observe the technological procedures by the train driver of the regional passenger train No. 24948 when removing the defect of the accumulator switching brake.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	22 <sup>nd</sup> February 2019, 19:20 (18:20 GMT).
Occurrence type:	an unauthorized movement.
Description:	the unauthorized movement of the long distance passenger train No. 350 behind the main departure signal device L2 and its ride into the train route of the regional passenger train No. 17816.
Type of train:	the long distance passenger train No. 350; the regional passenger train 17816.
Location:	Ejpvovice station, the station track No. 2, the main departure signal device L2, km 93,768.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the trains No. 350 and 17816).
Consequences:	0 fatalities, 0 injuries; total damage CZK 0.
Direct cause:	<ul style="list-style-type: none"><li>• a departure of the long distance passenger train No. 350 without regular dispatching of the train.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• an absence of the technical equipment which prevents a train from passing a signal in case of danger.</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• failure to comply with the technological procedures of the IM for departure of the train from the operating point – failure to request dispatching of the train in other way than by the signal of the main departure signal device in case when the signal of the main departure signal device is not visible from the place where the train stopped.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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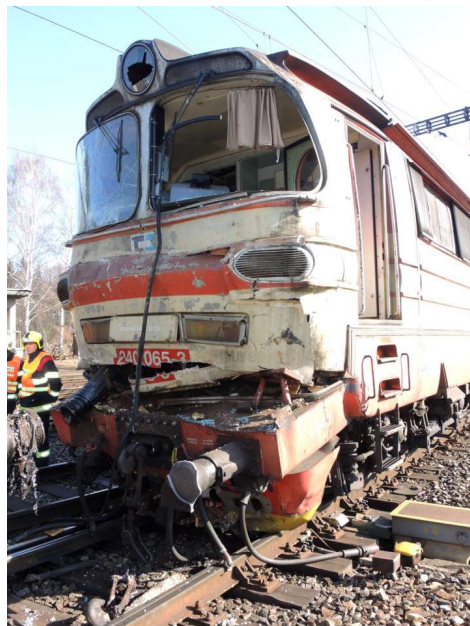


## **ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	27 <sup>th</sup> February 2019, 8:38 (7:38 GMT).
Occurrence type:	train collision.
Description:	the unauthorized movement of the shunting operation behind the marshalling signal device Se7 with its consequent entry into the train route and collision with the freight train No. 45306.
Type of train:	the freight train No. 45306; the shunting operation.
Location:	Havlíčkův Brod station, the switch No. 13ab, km 223,174.
Parties:	SŽDC, s. o. (IM); ČD Cargo, a. s. (RU of the long distance freight express train No. 45306); LOKORAIL, s. s. (RU of the shunting operation).
Consequences:	0 fatality, 0 injury; total damage CZK 4 945 050,-
Direct cause:	<ul style="list-style-type: none"><li>• failure to respect the signal „Shunting forbidden” of the signal device Se7 by the train driver of the shunting operation.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• incorrect assessment of the radio communication content between the train driver of the shunting operation and the station dispatcher immediately before the incident, when the train driver asked through the radio station for consent to shunt, even though it has always been generally given by the light signal on the relevant signal devices for all previous shunting movements at the station perimeter;</li></ul>
Underlying cause:	<ul style="list-style-type: none"><li>• failure to comply with the obligation of the train driver of the shunting operation to determine by sight or a query whether the fixed signal devices – which are valid for a shunting operation – allow the shunting operation for each intended movement of the shunting operation.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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**ACCIDENT SUMMARY**

Grade:	an incident.
Date and time:	2 <sup>nd</sup> March 2019, 9:01 (8:01 GMT).
Occurrence type:	an unauthorized movement.
Description:	the unauthorized movement of the train set No. 1042 behind the entry signal device 2L with its consequent entrance into the train route of the service train No. 171181.
Type of train:	the train set No. 1042; the service train No. 171181.
Location:	Praha-Smíchov station, the entry signal device 2L, km 4,167.
Parties:	SŽDC, s. o. (IM and RU of the service train No. 171181); RegioJet, a. s. (RU of the train set No. 1042).
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none"><li>• failure to detect the signal Stop given by the entry signal device of Praha-Smíchov station by the train driver in training, respectively by the train driver of the train set No. 1042.</li></ul>
Contributory factor:	<ul style="list-style-type: none"><li>• absence of technical equipment which prevent a train from passing a signal in case of danger.</li></ul>
Underlying causes:	<ul style="list-style-type: none"><li>• failure to observe the railway line and signals by the train driver in training, respectively by the train driver of the train set No. 1042 from the leading rolling stock;</li><li>• prioritizing the activities which are not related to driving of the rolling stock over the observation of the railway line by the train driver;</li><li>• ignorance of the local conditions by the train driver in training.</li></ul>
Root cause:	none.
Recommendation:	not issued.

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## **ACCIDENT SUMMARY**

- Grade: serious accident.
- Date and time: 13<sup>th</sup> July 2019, 15:14 (13:14 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the regional passenger train No. 17750 with a car at the level crossing.
- Type of train: regional passenger train No. 17750.
- Location: open line between Lubná and Zavidov operating control points, level crossing No. P1735, km 8,544.
- Parties: SŽDC, s. o. (IM);  
ČD, a. s. (RU of the regional passenger train No. 17750);  
driver of the car (level crossing user).
- Consequences: 1 fatality, 7 injuries;  
total damage CZK 5 200 000,-  
The amount of the damage was not final on the day of the final report processing.
- Direct cause:
- driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and the visual and acoustic warnings were being given.
- Contributory factor: none.
- Underlying causes:
- driver's failure to respect the light and acoustic warning of the level crossing safety equipment;
  - driver's behavior in front of the level crossing, the driver was not careful enough.
- Root cause: none.
- Recommendations:
- Addressed to The Czech National Safety Authority (NSA):
- it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only the level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of the railway tracks and the level crossings;
  - it is recommended to adopt own measure for change of the level crossing system of the level crossing No. P1735 to a level crossing system equipped with barriers, which from the point of view as an optical barrier will reduce probability of the driver's entrance at the level crossing when a driver does not respond to the light and acoustic warning of the level crossing safety equipment.
- Addressed to the Municipal Authority of Rakovník as the Road Administration Office in the field of roads II. Class:
- it is recommended to adopt own measure to ensure that the traffic signs A 31a "Signboard (240 m)", A 30 "Level crossing without barriers", A 31b "Signboard (160 m)" and A 31c "Signboard (80 m)" which are placed before the level crossing No. P1735 in

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both directions, will be retrofitted with yellow reflective coloring to highlight the designated traffic signs.

