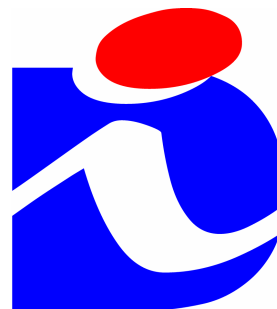


Czech Republic



**The Rail Safety
Inspection Office**

NIB ANNUAL REPORT 2020

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 2020, 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 2020
- the safety recommendations issued



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1 INTRODUCTION TO THE INVESTIGATION BODY

1.1 Legal framework

The process of the implementation of Directive 2004/49/EC into the national legislation of the Czech Republic was completed on 1st 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 1st 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 1st January 2003, the National Investigation Body – The Rail Safety Inspection Office – was established in the Czech Republic pursuant to the provisions of Act 77/2002 Coll. The Rail Safety Inspection Office is a national body investigating the causes of railway accidents and incidents independently of any other party. As an investigation body it is independent of any infrastructure manager, railway undertaking and regulatory body. The competences of The Rail Safety Inspection Office include:

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

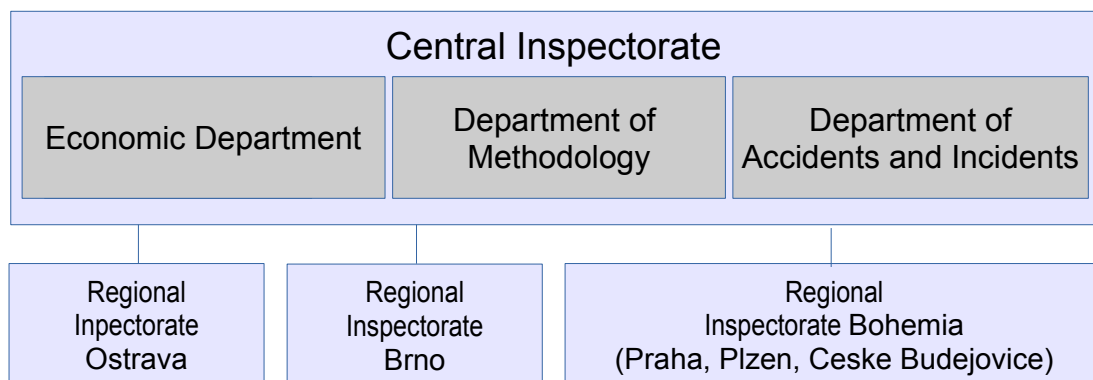
The Rail Safety Inspection Office has a total of **38 employees** in five cities of the Czech Republic (Ostrava, Brno, Praha, Plzen, Ceske Budejovice). It comprises of the Central Inspectorate and three regional inspectorates covering the area of the entire country. The Central Inspectorate consists of the Economic department, the Department of methodology and international cooperation and the Department of accidents and incidents and the central reporting work place.

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

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

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

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



1.4 Organisational flow

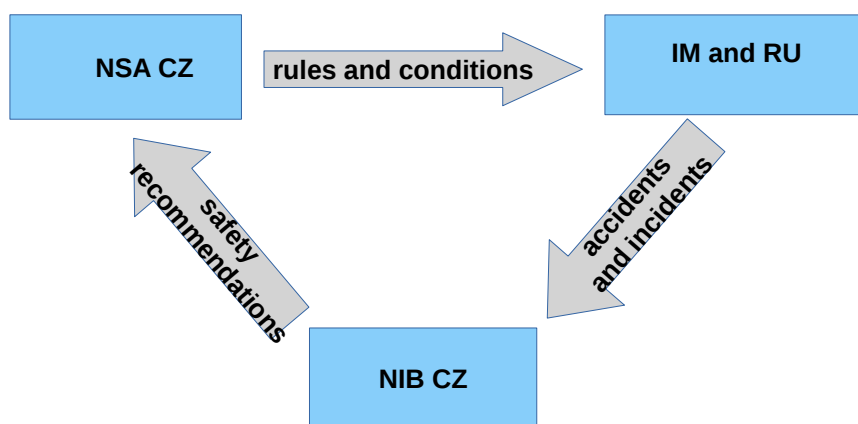
The structure of railway sector in the Czech Republic and relationships among the parties involved are defined in Act 266/1994 Coll., on Railways, as amended, and its implementing regulations. The legislation applies to the following transport systems:

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

The most important bodies in the railway sector include the Czech Ministry for Transportation, The Railway Office and The Rail Safety Inspection Office. The Czech Ministry for Transportation is in charge of the national railway legislation, including implementation of the EU railway legislation. The Railway Office is the National Safety Authority carrying out certification 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 2020, identifying key trends

Trends of completed investigations (last column of the table) are calculated as difference to previous year (2019).

Type of accidents investigated	Number of accidents	Number of victims		Damages in € (approx.)	Trends in relation to previous year
		Deaths	Ser.injury		
Collisions	6	0	0	264.407,-	-33 %
Derailments	8	0	0	1.260.715,-	0 %
LC-accident	14	13	0	3.839.720,-	-57 %
Fire in RS	0	0	0	0	+40 %
Acc. to person	6	4	1	446	+200 %
Other	14	1	0	5.870.412,-	-22 %

3.2 Investigations completed and commenced in 2020

Investigations completed in 2020

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Completed (date)
6. 9. 2017	Accident to person caused by RS in motion: between Jaromer – Ceska Skalice stations	i	12. 3. 2020
6. 1. 2018	Trains collision: in Ceska Lipa station with consequent derailment	i	3. 9. 2020
23. 5. 2018	Other: Derailment – overturning during shunting operation between Mikulasovice dolni nadrazi - Pansky stations	i	5. 6. 2020
2. 12. 2018	Level-crossing accident: km 434,211 between Velke Brezno - Usti nad Labem Strekov stations	i	21. 2. 2020
23. 2. 2019	Other: Collision of rolling stocks during shunting operation in Ceske Budejovice station	i	7. 4. 2020
26. 2. 2019	Trains collision: in Jihlava station	i	28. 2. 2020
4. 3. 2019	Trains collision: between Ronov nad Doubravou – Zleby stations	i	17. 4. 2020
5. 3. 2019	Trains collision: in Brno hlavni nadrazi station	i	3. 2. 2020
11. 3. 2019	Other: Unauthorised train movement other than SPAD in Most nove nadrazi station	i	28. 1. 2020



Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Completed (date)
14. 3. 2019	Accident to person caused by RS in motion: in Rajec Jestrebi station	i	4. 3. 2020
29. 3. 2019	Train derailment: in Kostelec u Hermanova Mestce station	i	22. 4. 2020
29. 3. 2019	Other: Uncontrolled movement of rolling stock with consequent collision with an obstacle and derailment in Veseli nad Moravou station	i	9. 4. 2020
13. 4. 2019	Other: Unauthorised movement of shunting operation other than SPAD with consequent collision with other rolling stocks, derailment and fire in "pristav Melnik" siding	ii	10. 3. 2020
19. 4. 2019	Accident to person caused by RS in motion: in Usti nad Orlici station	i	24. 4. 2020
28. 6. 2019	Train derailment: in Vysoke Myto station	i	30. 1. 2020
8. 7. 2019	Trains collision: in Plzen hlavni nadrazi station	i	5. 2. 2020
14. 7. 2019	Level-crossing accident: km 35,068 between Jaromer - Smirice stations	i	27. 1. 2020
16. 7. 2019	Level-crossing accident: km 108,978 in Horetice station	i	15. 2. 2020
21. 7. 2019	Other: Tram trains collision with an obstacle in The City of Praha – between Trojska – Nad Trojou stops	ii	30. 7. 2020
24. 7. 2019	Trains collision with an obstacle with consequent derailment: between Nova Paka – Lazne Belohrad stations	i	8. 2. 2020
28. 7. 2019	Train derailment: between Chodova Plana – Marianske Lazne stations	i	29. 5. 2020
30. 7. 2019	Level-crossing accident: km 4,981 between branch Moravice – Hradec nad Moravici station	i	26. 2. 2020
19. 8. 2019	Other: Uncontrolled movement of rolling stock with consequent collision with other rolling stocks in "DEZA Valasske Mezirici" siding	ii	15. 4. 2020
20. 8. 2019	Other: Unauthorised movement of shunting operation other than SPAD with consequent collision with an obstacles, other rolling stock and derailment in Lovosice station	i	10. 8. 2020
21. 8. 2019	Level-crossing accident: km 16,382 between Ronov nad Doubravou – Tremosnice stations	i	13. 5. 2020



Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Completed (date)
23. 8. 2019	Level-crossing accident: km 94,631 between Zakupy - Mimon stations	i	2. 10. 2020
25. 8. 2019	Other: Uncontrolled movement of tram train with consequent collision with an obstacle in The City of Olomouc – in U Domu stop	ii	16. 4. 2020
29. 8. 2019	Other: SPAD of shunting operation in Kolin station	i	28. 5. 2020
31. 8. 2019	Train derailment: in Lipa nad Drevnici station	i	19. 2. 2020
6. 9. 2019	Level-crossing accident: km 169,968 in Praha Uhrineves station	i	28. 4. 2020
12. 9. 2019	Level-crossing accident: km 16,178 between Hnevceves - Vsestary stations	i	17. 2. 2020
30. 9. 2019	Other: Train derailment in “Liberty Ostrava” siding	ii	24. 3. 2020
1. 10. 2019	Level-crossing accident: km 0.645 in Hrusovany nad Jevisovkou Sanov station	i	30. 4. 2020
2. 10. 2019	Train derailment: in Omlenice station	i	30. 4. 2020
20. 10. 2019	Level-crossing accident: km 182,324 between Blansko - Rajec Jestrebi stations	i	5. 5. 2020
18. 11. 2019	Other: SPAD of shunting operation in Decin vychod dolni nadrazi station	i	6. 5. 2020
27. 11. 2019	Other: SPAD in Praha Bechovice station	i	5. 10. 2020
17. 1. 2020	Train derailment: in Krasny Jez station	i	15. 6. 2020
18. 2. 2020	Accident to person caused by RS in motion: between Lichkov – Lichkov statni hranice stations	i	13. 11. 2020
21. 2. 2020	Level-crossing accident: km 9,040 between Mestec Kralove – Chlumec nad Cidlinou stations	i	14. 8. 2020
28. 2. 2020	Other: Unauthorised train movement other than SPAD with consequent derailment and collision with other rolling stock in Revnice station	i	14. 9. 2020
28. 2. 2020	Accident to person caused by RS in motion: in Tabor station	i	25. 9. 2020
27. 4. 2020	Level-crossing accident: km 1,856 between Hermanova Hut – Nyrany stations	i	14. 9. 2020
16. 5. 2020	Level-crossing accident: km 125,250 between Hnojnik – Dobra u Frydku Mistku stations	i	29. 9. 2020
18. 6. 2020	Train derailment: in Obrnice station	i	4. 12. 2020



Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Completed (date)
18. 6. 2020	Accident to person caused by RS in motion: between Lysa nad Labem – Odbočka Karany stations	i	9. 12. 2020
25. 6. 2020	Train derailment: in Most nove nadrazi station	i	18. 11. 2020
5. 8. 2020	Level-crossing accident: km 49,634 between Jihlavka – Pocatky Zirovnice stations	i	18. 12. 2020

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 2020

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis
17. 1. 2020	Train derailment: in Krasny Jez station	i
4. 2. 2020	Other: SPAD of shunting operation in Praha Masarykovo nadrazi station	i
17. 2. 2020	Other: Tram trains collision in The City of Brno – Krizova street	ii
18. 2. 2020	Accident to person caused by RS in motion: between Lichkov – Lichkov statni hranice stations	i
21. 2. 2020	Level-crossing accident: km 9,040 between Mestec Kralove – Chlumec nad Cidlinou stations	i
21. 2. 2020	Level-crossing accident: km 3,119 between Dobris – Mala Hradiste stations	i
28. 2. 2020	Other: Unauthorised train movement other than SPAD with consequent derailment and collision with other rolling stock in Revnice station	i
28. 2. 2020	Accident to person caused by RS in motion: in Tabor station	i
20. 3. 2020	Other: Collision of rolling stocks during shunting operation in Kolin station	i
27. 4. 2020	Level-crossing accident: km 1,856 between Hermanova Hut – Nyrany stations	i
7. 5. 2020	Other: Unauthorised movement of shunting operation other than SPAD with consequent collision with other rolling stock and derailment between Decin Prostredni Zleb - Decin vychod stations	i
16. 5. 2020	Level-crossing accident: km 125,250 between Hnojnik – Dobra u Frydku Mistku stations	i
12. 6. 2020	Train derailment: between Jindris – Blazejov stations	i
14. 6. 2020	Level-crossing accident: km 6,448 between Postupice – Benesov stations	i



18. 6. 2020	Train derailment: in Obrnice station	i
18. 6. 2020	Accident to person caused by RS in motion: between Lysa nad Labem – Odbocka Karany stations	i
23. 6. 2020	Level-crossing accident: km 4,884 between Brandys nad Labem - Celakovice stations	i
25. 6. 2020	Train derailment: in Most nove nadrazi station	i
29. 6. 2020	Other: Unauthorised train movement other than SPAD in Svetla nad Sazavou station	i
4. 7. 2020	Trains collision with an obstacle: in Prosenice station	i
7. 7. 2020	Trains collision: between Pernink – Nove Hamry stations	i
10. 7. 2020	Trains collision: in Praha Bechovice station	i
14. 7. 2020	Trains collision: between Uvaly – Cesky Brod stations	i
15. 7. 2020	Level-crossing accident: km 12,688 between Velke Opatovice - Sebetov stations	i
15. 7. 2020	Train derailment: in Medlesice station	i
21. 7. 2020	Level-crossing accident: km 14,025 between Cermna nad Orlici - Borohradek stations	i
22. 7. 2020	Other: SPAD in Jablonne nad Orlici station	i
22. 7. 2020	Train derailment: in Lazne Kynzvalt station	i
28. 7. 2020	Other: Injury of the external worker by electric current from a contact line in Krizanov station	i
5. 8. 2020	Level-crossing accident: km 49,634 between Jihlava – Pocatky Zirovnice stations	i
11. 8. 2020	Trains collision: in Jihlava station	i
13. 8. 2020	Train derailment: in Tisnov station	i
14. 8. 2020	Other: Uncontrolled movement of rolling stocks from Keraclay Nehvizdy siding with consequent derailment and collisions with an obstacle in Mstetice station	i
18. 8. 2020	Trains collision with an obstacle with consequent Accident to person caused by RS in motion: between Brno Horni Herspice - Strelce stations	i
31. 8. 2020	Accident to person caused by RS in motion: between Balkova Lhota - Bozejovice stations	i
2. 9. 2020	Level-crossing accident: km 3,127 between Moravske Branice - Ivancice stations	i
9. 9. 2020	Trains collision: in Kdyne station	i
18. 9. 2020	Level-crossing accident: km 100,674 in Kunovice station	i
26. 9. 2020	Train derailment: in Uporiny station	i
6. 10. 2020	Level-crossing accident: km 100,674 in Holkov station	i
29. 10. 2020	Other: Tram trains collision in The City of Ostrava - in the area of the road crossing Opavska and Martinovska streets	ii
6. 11. 2020	Trains collision with an obstacle: in Poricany station	i
6. 11. 2020	Other: Derailment during shunting operation in Kolin	i



	station	
19. 12. 2020	Train derailment: in Hluboka nad Vltavou Zamosti 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 2020

Safety Studies completed in 2020

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 2020

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 2020 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 2016–2020)

Rail investigations completed in 2016–2020

The table groups investigations by year of their completion.

Accidents investigated		2016	2017	2018	2019	2020	TOT
Serious accidents (Art 19, 1 + 2)	Train collision	1	0	0	0	0	1
	Train collision with an obstacle	0	0	1	0	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
Other accidents (Art 21.6)	Train collision	6	3	2	6	5	22
	Train collision with an obstacle	3	0	5	3	1	12
	Train derailment	5	5	5	8	8	31
	Level-crossing accident	5	7	23	10	14	59
	Accident to person caused by RS in motion	1	2	1	2	6	12
	Fire in rolling stock	0	0	0	0	0	0
	Involving dangerous goods	0	0	0	0	0	0
Incidents		0	3	9	9	7	28
TOTAL		21	20	46	38	41	166



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 2016 – 2020

Recommendations issued		Recommendation implementation status					
		Implemented		In progress		Not to be implemented	
Year	[No.]	[No.]	[%]	[No.]	[%]	[No.]	[%]
2016	20	5	25	13	65	2	10
2017	16	4	25	4	25	8	50
2018	31	9	29	18	58	4	13
2019	19	8	42	9	47,5	2	10,5
2020	25	6	24	16	64	3	12
TOTAL	111	32	29	60	54	19	17

Accidents with safety recommendations issued in 2016 – 2020

Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
17. 9. 2014	Trains collision: in Praha Vysehrad station with consequent derailment	partially implemented	13. 6. 2016
13. 11. 2014	Train derailment: in Pribyslav station	implemented	7. 7. 2016
30. 12. 2014	Trains collision: in Poricany station with consequent derailment	partially implemented	16. 5. 2016
11. 1. 2015	Trains collision with an obstacle: between Rozna – Nedvedice stations	partially implemented	8. 1. 2016
16. 2. 2015	Trains collision: in Bakov nad Jizerou station	partially implemented	30. 3. 2016



Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
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 – Ostrozská Nova Ves stations	in progress	7. 4. 2016
7. 9. 2015	Level-crossing accident: km 8,971 in Sluknov station	partially implemented	7. 6. 2016
9. 9. 2015	Accident to person caused by RS in motion: in Golcuv Jenikov station	implemented	29. 6. 2016
14. 9. 2015	Train derailment: between Vlkanec – Golcuv Jenikov stations	not implemented	7. 4. 2016
30. 10. 2015	Trains collision: in Rehlovice station	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 – Prevyšov stations	implemented	11. 7. 2017
13. 4. 2016	Other: SPAD in Rudoltice v Cechach station	not implemented	11. 7. 2017
27. 5. 2016	Train derailment: in Praha hlavní nadrazi station	in progress	29. 8. 2017
24. 7. 2016	Accident to person caused by RS in motion: between Olomouc – Štěpánov stations	implemented	13. 1. 2017
30. 8. 2016	Train derailment: in Kolin station	not implemented	24. 4. 2017



Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
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	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 Olsí” siding	implemented	23. 2. 2018
5. 6. 2017	Trains collision with an obstacle: in Prerov station	partially implemented	4. 7. 2018
12. 6. 2017	Other: Unauthorised train movement other than SPAD in Cesky Brod station	implemented	7. 9. 2018
8. 7. 2017	Trains collision with an obstacle: between Hulin - Rikovice and Rikovice – Prerov stations	partially implemented	12. 7. 2018
25. 7. 2017	Level-crossing accident: km 73,647 between Vlkos station – Vracov stop	not implemented	2. 2. 2018
27. 7. 2017	Train derailment: in Novosedly station	implemented	11. 9. 2018
8. 8. 2017	Other: Derailment during shunting operation in Bohumin Vrbice station	in progress	2. 7. 2018



Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
12. 8. 2017	Trains collision with an obstacle: between Mostek – Bila Třemesná stations with consequent derailment	partially implemented	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 - Vrutek stations	partially implemented	19. 2. 2018
5. 11. 2017	Other: Tram trains collision in The City of Brno – junction Hybesova - Nadrazní	implemented	26. 4. 2018
13. 11. 2017	Level-crossing accident: km 17,427 between Lipa nad Dřevicí station – Zelechovice nad Dřevicí stop	partially implemented	18. 4. 2018
22. 11. 2017	Level-crossing accident: km 47,208 between Obratan - Chynov stations	implemented	16. 4. 2018
4. 1. 2018	Level-crossing accident: km 94,654 between Lochovice - Zdice stations	implemented	9. 3. 2018
6. 1. 2018	Other: Accident to person caused by RS in motion with consequent tram train collision with an obstacle in The City of Ostrava – in Zahradky stop	implemented	19. 7. 2018
31. 1. 2018	Level-crossing accident: km 2,140 between Skovice – 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	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 Lužnicí station	partially implemented	15. 10. 2018
27. 5. 2018	Other: SPAD of shunting operation in Praha Vršovice šeradovské 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
11. 7. 2018	Level-crossing accident: km 148,280 in Stankov station	partially implemented	28. 11. 2018



Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
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	implemented	17. 1. 2019
18. 1. 2018	Other: SPAD in Smrzovka station with consequent collision with an obstacle	in progress	5. 4. 2019
3. 2. 2018	Other: Unauthorised movement of shunting operation other than SPAD in Melnik station with consequent collision with standing locomotive	implemented	7. 6. 2019
26. 3. 2018	Accident to person caused by RS in motion: in Rudoltice v Cechach station	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	implemented	4. 10. 2019
21. 9. 2018	Trains collision with an obstacle: between Holysov - Stankov stations	implemented	30. 9. 2019
23. 10. 2018	Other: SPAD in Studenec station	not implemented	28. 5. 2019
5. 11. 2018	Level-crossing accident: km 127,065 between Turnov - Sychrov stations	in progress	15. 5. 2019
18. 11. 2018	Train derailment: in Studenka station	in progress	30. 4. 2019
21. 11. 2018	Other: Derailment during shunting operation in Strakonice station	implemented	20. 5. 2019
13. 7. 2019	Level-crossing accident: km 8,544 between Lubna - Zavidov stations	partially implemented	27. 11. 2019
6. 1. 2018	Trains collision: in Ceska Lipa station with consequent derailment	implemented	3. 9. 2020
2. 12. 2018	Level-crossing accident: km 434,211 between Velke Brezno - Usti nad Labem Strekov stations	partially implemented	21. 2. 2020



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



Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
27. 11. 2019	Other: SPAD in Praha Bechovice station	not implemented	5. 10. 2020
17. 1. 2020	Train derailment: in Krasny Jez station	implemented	15. 6. 2020
21. 2. 2020	Level-crossing accident: km 9,040 between Mestec Kralove – Chlumec nad Cidlinou stations	partially implemented	14. 8. 2020
27. 4. 2020	Level-crossing accident: km 1,856 between Hermanova Hut – Nyrany stations	partially implemented	14. 9. 2020
16. 5. 2020	Level-crossing accident: km 125,250 between Hnojnik – Dobra u Frydku Mistku stations	partially implemented	29. 9. 2020

4.2 Recommendations issued in 2020

Date of occurrence	Title of the investigation, Safety recommendation
6. 1. 2018	Trains collision: in Ceska Lipa station with consequent derailment
Addressed to The Czech National Safety Authority (NSA): • as part of its activities as the national safety authority (safety monitoring and controls) we recommend that the NSA focus on compliance with the established rules for organization and carrying out the shunting operation, including the radio communication by the individual involved employees; and also on the control activities of the IMs and RUs; • we recommend that NSA adopt measures that the participating IMs and RUs will ensure an increase of the control activities over compliance with the established rules for organization and carrying out the shunting operation, including the radio communication.	
2. 12. 2018	Level-crossing accident: km 434,211 between Velke Brezno - Usti nad Labem Strekov stations
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. P2969 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.	



Date of occurrence	Title of the investigation, Safety recommendation
23. 2. 2019	Other: Collision of rolling stocks during shunting operation in Ceske Budejovice station
Addressed to The Czech National Safety Authority (NSA): it is recommended to adopt own measure to ensure execution of controls focused on the possible installation of the incorrect rubber cuffs of the pistons of the brake cylinders of the brake units of the locomotives, especially series No. 362, 363, 162, 163 operated by all RUs in the Czech Republic, this should be done due to mentioned above changes caused by frost when interacting with wear – cavitation (corrosion attack of ferritic-pearlitic carbon steel) of the working wall of the brake cylinders and thus the essential release of compressed air from the brake cylinders into the atmosphere.	
4. 3. 2019	Trains collision: between Ronov nad Doubravou – Zleby stations
Addressed to The Ministry of transport (Ministry) in cooperation with The Czech National Safety Authority (NSA): - the Ministry and the NSA will consider the possibility to equip the railway lines with the European Rail Traffic Management System (hereinafter “ERTMS”) in simpler technical design and economically acceptable level, e. g. with the use of means and functionalities which have not yet been implemented in the Czech Republic, but which are commonly used abroad (e. g. the European Train Control System constituents on level 1 with the use of the operating mode “Limited Supervision” and others) when updating the National Implementation Plan (hereinafter “NIP”); - the Ministry and the NSA will propose a specific progress and schedule of equipment of the other lines beyond the framework of the European legislation (the lines of trans-European railway network TEN-T) and Czech legislation (the lines with a speed greater than 100 kph) with the ERTMS when updating the NIP; the NIP must be supplemented in this sense. With regard to the mentioned possibilities of using further and simpler variants of the ERTMS/ETCS implementation, the RSIO does not recommend to postpone the ERTMS implementation until 2030 or to wait until imposing additional obligations by the European legislation, or to condition the ETCS implementation by the previous GSM-R implementation, the RSIO strongly discourage to bind the implementation to the final modernization or optimization of the line. When the line is modernized or optimized (beyond the lines of trans-European railway network TEN-T), the RSIO recommends to include the ETCS implementation as an integral part of it; - considering the possibility that the ERTMS may not be implemented on some lines even in the long terms, the RSIO recommends to consider excluding them from the system covered by the requirements of the Directive on the interoperability of the rail system within the European Union and related European legislation, respectively to enable the implementation of the technical equipment that would enable to increase the safety level of movement of the railway vehicles by a technical solution adequate to the current state of the art and at the same time economically acceptable at an adequate level of safety on these lines.	



Date of occurrence	Title of the investigation, Safety recommendation
29. 3. 2019	Train derailment: in Kostelec u Hermanova Mestce station
Addressed to The Czech National Safety Authority (NSA): - as part of its activities as a national safety authority, we recommend that the NSA adopt measures to ensure that the infrastructure manager Správa železnic, s. o., and other IMs: - will create uniform and clear technological procedures for executing controls and measurement of the point blades of the switches after their welding and grinding, and also unify these procedures into a single binding document.	
29. 3. 2019	Other: Uncontrolled movement of rolling stock with consequent collision with an obstacle and derailment in Veseli nad Moravou station
Addressed to The Czech National Safety Authority (NSA): - as part of its activities as a national safety authority, we recommend that NSA adopt measures to ensure that the railway undertaking ČD (the operator of the steam locomotive boiler): - will perform one-time inspections of the inflow pipes condition (including wall thickness measurement; the inflow pipes supply steam to the locomotive steam engine) for all operated locomotives at least during the inspections and tests of the operated locomotive boilers and also will visually detect the external and internal surface condition of these pipes during these one-time inspections; - will ensure the replacement of the unsuitable inflow pipes (supplying steam to the locomotive steam engine) based on the evaluation and results of the one-time inspections according to the previous point; - will completely update the existing internal regulations on the specified technical equipment – the locomotive boilers operating or will issue a new one internal regulation, or a generally valid regulation on the specified technical equipment operating, which will include the part about locomotive boilers; any of these regulations should take into account the irregular locomotive boilers operating and should ensure that the approach to the locomotive boilers operating will be generally changed; - will update or issue the new internal regulation according to the previous point at the latest by the time when the RU will apply for the Railway Undertaking's Safety Certificate according to the section 34h of the Act No. 266/1994 Coll., when this new internal regulation will be attached to this application; - we recommend that the NSA adopt own measures to ensure the implementation of the above safety recommendations for other relevant steam locomotive operators in the Czech Republic.	
28. 6. 2019	Train derailment: in Vysoke Myto station
Addressed to The Czech National Safety Authority (NSA):	



Date of occurrence	Title of the investigation, Safety recommendation
	• following the previously issued safety recommendation inherent in the Investigation report of an incident, reference number: 6-1527/2018/DI, of 5th May 2019, we recommend that the NSA adopt in cooperation with the IMs of the regional railways its own measures to ensure that the active signal "Ride secured" which is given by the light signal device will be completed with an active signal prohibiting a ride in case the switch in resetting mode is not correctly switched in normal position of the self-returning switches. This should be adopt for the switches with the resetting point operating mechanism on the tracks with the simplified train operation control where the trains are operated; • we recommend that the NSA adopt its own measures to ensure that the existing way of acquiring of the basic general knowledge, skills and procedures which are necessary for driving locomotives and for performance of the train driver's activities will be adjust (extend). The adjustment (extension) should focus on obligatory passing the training to acquire the initial practical habits to solve situations requiring an immediate reaction to the immediate threat for safe operation of the rail transport in order to avert the accidents and incidents or to reduce its consequences. This training should be passed before the practical training in train driving would start; • we recommend that the NSA adopt its own measures to ensure that the existing valve of the rescue brake which is situated in the driver's cab will be removed from the right side of the control panel or the duplicit valve of the rescue brake will be established at such place, where it could be used by another person in the driver's cab who will sit on the rescue seat or will state next to the train driver. This should be adopt for the rail vehicles series 814 and 914.
16. 7. 2019	Level-crossing accident: km 108,978 in Horetice station
	Addressed to The Czech National Safety Authority (NSA): • it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of railway tracks and the level crossings; • change of the level crossing system of the level crossing No. P65 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 Žatec, Department of Transport and Road Economy, as the Road Administration Office in the field of roads II. Class: • to add the traffic sign A 31a "Signal board" with the traffic sign A 30 "Level crossing without barriers".
21. 7. 2019	Other: Tram trains collision with an obstacle in The City of Praha – between Trojska – Nad Trojou stops



Date of occurrence	Title of the investigation, Safety recommendation
Addressed to The Ministry of Transport: - we recommend that the Ministry of Transport initiate the creation of the regulation (e.g. standards, amendments to the existing act, the decrees, etc.), where the rules for the installation of the traffic signs and other parameters (marking, security, determination of the methodology for calculating on sight view conditions, maintenance of greenery, etc.) will be established uniformly, unambiguously and in the binding way for the crossing of the tram tracks with the roads and for their immediate surroundings. Addressed to The competent Rail Administrative Authorities for the tram tracks: - we recommend that the competent Rail Administrative Authorities for the tram tracks establish and adopt the temporary measures for the crossings of the tram tracks with the road and for their immediate surroundings so that greenery will be maintained and the obstacles in the view of the tram track will be removed, until the safety recommendation addressed to the Ministry of Transport is met; if these measures are not already adopted.	
24. 7. 2019	Trains collision with an obstacle with consequent derailment: between Nova Paka – Lazne Belohrad stations
Addressed to The Czech National Safety Authority (NSA): - as part of its activities resulting from its position as a national safety authority we recommend the NSA ensure that the IMs will incorporate the procedure in accordance with the section 10 paragraph 3 of Act No. 266/1994 Coll., on rail systems, as amended (hereinafter "Act No. 266/1994 Coll."), into their internal regulations and they will apply this procedure primarily and consistently, which means that the internal regulations of the IMs will impose an obligation on the relevant employees of the IM to remove trees endangering safe operation of the railway primarily thus without using procedure in accordance with the section 10 paragraph 2 of Act No. 266/1994 Coll.; - we also recommend the NSA execute the periodic state supervisions focused on check whether there are trees or other growth around the lines, which may fall into the structure gauge of the open line track and in case they are found, whether the relevant IM has already actively carried on with his statutory obligation, that means whether he has already taken effective steps to eliminate this source of danger. Addressed to The Czech Ministry of Transport: - on the basis of negotiations with the Ministry of Agriculture and the Ministry of the Environment we recommend the Ministry of Transport enforce changes in Acts No. 114/1992 Coll., on Nature and landscape protection, as amended, and No. 289/1995 Coll., on Forests and Amendments to some Acts (the Forest Act), as amended, so that these legal regulations will be in accordance with the provisions of the section 10 of Act No. 266/1994 Coll. (which means that their collisions will not create space for different legal interpretations and subsequently for litigation), and the IMs and landowners will be able to remove and prune the vegetation endangering the safety or flow of railway transport operation or rail system	



Date of occurrence	Title of the investigation, Safety recommendation
	operation without any administrative obstacles and time-consuming processes.
28. 7. 2019	Train derailment: between Chodova Plana – Mariánské Lázně stations
Addressed to The Czech National Safety Authority (NSA): • we recommend that the NSA require modification of articles of the internal regulation of the IM, SŽDC D1 concerning the location of the speed warning boards and speed indication signals. The current wording of the article 197 „<i>The speed warning board is a fixed signal device, which warns signalling the line speed from the next following speed indication signal.</i>”, article 1331 „<i>The signal To expect line speed...warns signalling a speed reduction from the next following speed indication signal to the train driver...</i>” and article 1349 „<i>The speed warning board is installed in front of the next following speed indication signal at a distance at least ...</i>” in conjunction with the article 118 „<i>Warning signalling is an activity during when an instruction which draws attention to the signal that will follow is given.</i>”, exclude the placement of other speed indication signals between these fixed signal devices, even if the signal devices are needed in railway traffic. As part of modification of these articles we recommend, for example, to consider integration of the obligation to place a repeating speed warning board at the level of the speed indication signal, which is installed between the speed warning board placed at a specified distance from the main speed indication signal which is valid for it; • we recommend that the NSA recommend the assessment of the possibility of alternative application of installation of the remote warning devices or so-called „Repeating speed warning boards” to the infrastructure managers in cases the line speed limit is essentially reduced and over-speeding could lead to a serious accident, similar as the signal marker boards are currently placed in front of the independent warning signals at the main signal devices or repeating driver's indication signals; • we recommend that the NSA require improvement of the clarity of the line characteristics tables from the infrastructure managers, which means highlighting current changes of the line characteristics tables, including color resolution, and highlighting those major speed reductions that may have a significant impact on rail transport operation safety so that these changes by its way of performing will step out of the general frame as warning data and the train drivers could not miss them (e. g. with indication of the state before the change becomes valid), eventually separation of essential information which are necessary because of safety from others and classification of these information in accordance with their importance; • we recommend that the NSA require creation of a system from the railway undertakings to ensure the immediate identification and adoption of measures for the train drivers who will not become demonstrably acquainted with changes in the construction technical parameters of the tracks which have a direct impact on ensuring the rail traffic safety; this should be made before the rolling stock is set in motion; • we recommend that the NSA require a clearly defined and excluding doubts way	



Date of occurrence	Title of the investigation, Safety recommendation
	how to demonstrably provide acquaintance of the train drivers, especially with changes in construction technical parameters of the tracks and line characteristics tables from the railway undertakings when issuing the Railway Undertaking's Safety Certificate and performing the state supervision; • we recommend that the NSA initiate assessment of the possibility to supplement the tabular timetable with a column (columns) containing essential data from the line characteristics tables, especially determining, resp. fundamentally limiting the line speed, especially in cases the line speed limit is permanent according to the line characteristics tables; this should be made in the interest of operation of a rail system and rail transport operation safety; • we recommend that the NSA recommend to reduce the specified period of validity of knowledge of the track conditions for the train drivers to the railway undertakings, this should be made in relation to the fact that there are currently many reconstructions, optimizations and constructions on the Czech railways, which result in many changes in construction technical parameters of the tracks and structures on the track with a direct impact on the rail transport operation safety and fluency. • within the scope of its powers, ensure that the adopted safety management system, especially the method for carrying out risk evaluation and implementing risk control measures, is executed by the railway undertakings so that their generally established procedures and methods will be applied more effectively to the specific operational situations; • initiate the improvement of mutual cooperation of the infrastructure managers and railway undertakings when executing risk control, especially when there is mutual interaction at common interface intervening to the operation of a rail system and when there is the risk of the possible human failure in the rail transport operating by the railway undertakings' employees, e.g. through specific provisions of the contracts on rail transport operation.
30. 7. 2019	Level-crossing accident: km 4,981 between branch Moravice – Hradec nad Moravici station
	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.
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
	Addressed to The Czech national Safety Authority (NSA): • to adopt own measure, which will ensure in the case of operated and newly put into



Date of occurrence	Title of the investigation, Safety recommendation
	operation station safety equipment of the 3rd category - electronic interlocks, that a sequence of characters is always required by the interlocking device to confirm the obligatory documented actions of the operator, when constructing travel routes for rail vehicles through the contact of mutually mouths, carried out in the form of a shift, when the end of the shift path is on another track, a so-called confirmation sequence containing the name or number of the track on which the end of the route is located; to adopt own measure, which will ensure that uniform technological procedures, which are elements of the safety management system of the rail transport operation of the RU Advanced World Transport a. s. (from 2nd October 2019 PKP CARGO INTERNATIONAL a. s.), respectively at other RUs in the Czech Republic, contained sequence of such safety principles for the operation of brake, or the rolling stock sanding equipment by a driver which during the train or shunting operation is running in poor weather or adhesion conditions, ensures that the speed of the rolling stock is reduced or stopped safely at the required place, and it starting of breaking in time smaller braking performance, respectively support rolling of wheels use sanding equipment if the rolling stock is equipped of this equipment.
21. 8. 2019	Level-crossing accident: km 16,382 between Ronov nad Doubravou – Tremosnice stations
Addressed to The Municipal Authority of Chrudim as the Road Administration Authority: to ensure the addition of the road marking in the area of the level crossing No. P3762, especially addition of the horizontal road sign V6b, „Transverse line continuous STOP“ according to the Technical Conditions 133 (Principles for horizontal road traffic marking) which will be placed at a minimum distance of 2200 mm from the track axis according to the ČSN 73 6380.	
23. 8. 2019	Level-crossing accident: km 94,631 between Zakupy - Mimon stations
Addressed to The Czech National Safety Authority (NSA): in cooperation with the relevant IM we recommend that the NSA focus (preferentially, across the board and intensively) on problematics of the level crossings where the border of the nearest crossroad is less than 30 m away from the danger zone of the level crossing. In case these level crossings could not be canceled or solved by the interchange of a railway with a road then safety at these level crossings should be at least systematically increased, e.g. by using the measures described in point 4.2.1 of this final report.	
25. 8. 2019	Other: Uncontrolled movement of tram train with consequent collision with an obstacle in The City of Olomouc – in U Domu stop
Addressed to The Czech National Safety Authority (NSA): to adopt own measure, which ensure:	



Date of occurrence	Title of the investigation, Safety recommendation
	- that the connection of the circuit breakers FA11 and FA13 and connection of the control of the non-adhesion rail electromagnetic brakes will be modified on all manufactured EVO type rail vehicles, where the connection of the control of the non-adhesion rail electromagnetic brakes corresponds to the design according to the technical conditions of the EVO 1 railcar valid from May 10, 2017, so that these brakes could be activated even when the steering will be switched off (provided the vehicle batteries will be switched on); - all rail vehicles of the EVO series will be equipped with the mechanical means for securing the vehicles against movement, e. g. by the locking wedges, in case the corresponding brake rating of the mechanical - electrohydraulic disc brake which should stop the rail vehicle and protect it against movement will not occur.
6. 9. 2019	Level-crossing accident: km 169,968 in Praha Uhrineves station
	Addressed to The Czech National Safety Authority (NSA): - in cooperation with the Czech Ministry of Transport to initiate change of the Czech technical standard CSN 34 2650 ed. 2 „Railway signaling equipment - Level crossing safety equipment“, as amended so that at level crossings secured by light level crossing system with two half barriers on both sides that go down simultaneously against each other, apply as a matter of priority the system where the barrier on the driver side goes down sooner than the opposite one immediately after expiring warning time; - in cooperation with the Czech Ministry of Transport to initiate change of the Czech technical standard CSN 34 2650 ed. 2 „Railway signaling equipment - Level crossing safety equipment“ as amended so that the signal red and white paint on the inside of the barriers was replaced by a different sign (which does not evoke a ban), or encouraging the driver to leave the level crossing by breaking the barriers. Addressed to The Prague City Hall, as the Road Administration Authority: - to ensure the addition of the road marking in the area of the level crossing No. P5674, especially addition of the horizontal road sign V5, „Transverse line continuous“ according to the Technical Conditions 133 (Principles for horizontal road traffic marking).
12. 9. 2019	Level-crossing accident: km 16,178 between Hnevceves - Vsestary stations
	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. Addressed to The Municipal authority of Sovětske:



Date of occurrence	Title of the investigation, Safety recommendation
	to ensure the repair of the tertiary road surface on plot number 589/1 with the goal – remove the pothole located in the immediate proximity of the level crossing No. P5391 in the driving direction to the Sovětské village.
1. 10. 2019	Level-crossing accident: km 0.645 in Hrusovany nad Jevisovkou Sanov station
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 crossings No. P7115 and P3926 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.	
20. 10. 2019	Level-crossing accident: km 182,324 between Blansko - Rajec Jestrebi stations
Addressed to The Municipal Authority of Blansko as the Road Administration Authority in the cases of the roads of 3rd class and to The Czech National Safety Authority (the NSA): it is recommended to ensure modification of the existing road marking in front of the level crossing No. P6803 in the direction of ride from Dolní Lhota and addition of the road marking with the horizontal road sign No. V4 „Guiding line” which will be placed at the appropriate distance in front of, over and behind the level crossing.	
27. 11. 2019	Other: SPAD in Praha Bechovice station
Addressed to The Czech Ministry of Transport (hereinafter „the Ministry”) in cooperation with The Czech National Safety Authority (the NSA): we recommend the Ministry in cooperation with the NSA initiate an amendment and supplementing to content of the count 1.7 of the Annex 3 to the Decree No. 16/2012 Coll., so that information on relevant accidents and incidents that have occurred on the defined railway track or its part (it is important not to relate this information to only one RU, but to all accidents and incidents on the specific railway track) will be amended.	
17. 1. 2020	Train derailment: in Krasny Jez station
Addressed to The Czech National Safety Authority (NSA): following the previously issued safety recommendation reference number 720/2016/DI, of 9th November 2016, to adopt in cooperation with the IMs of the regional railways its own measures to ensure adjustment of the electronic control and diagnostic system REMOTE 98 so that the loss of the preferred position of the	



Date of occurrence	Title of the investigation, Safety recommendation
	switch with the resetting point operating mechanism is indicated not only optically on the screen of the monitor of the uniform operating workplace, but also by displaying the window of fault messages with their listing, and further acoustically.
21. 2. 2020	Level-crossing accident: km 9,040 between Mestec Kralove – Chlumec nad Cidlinou stations
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 (including the level crossing No. P4571) during the reconstruction and modernization of the railway tracks.	
27. 4. 2020	Level-crossing accident: km 1,856 between Hermanova Hut – Nyrany stations
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 level crossings, including the level crossing No. P647; - it is recommended to adopt own measure to ensure that at the level crossing No. P647 which is currently secured only by a warning cross will be the road markings at this level crossing immediately equipped with a yellow-green retroreflective substructure; - it is recommended to adopt own measure to ensure that in the sighting distances for road vehicles at the level crossing No. P647 will not to adjacent cultivated fields sown with crops that restrict the view of the track by their height, i.e. that sighting distances will be provided for drivers of road vehicles in all quadrants of level crossing.	
Addressed to The Municipal Authority of Nýřany as the Road Administration Office in cases of the III. class roads: - it is recommended to adopt a measure to ensure that vertical traffic sign A 31a „Signal board” (240 m) supplemented by traffic sign A 30 „Level crossing without barriers”, A 31b „Signal board” (160 m) and A 31c „Signal board” (80 m) located in front of the level crossing No. P647 in both directions, will be equipped with a yellow-green retroreflective substructure; - it is recommended to adopt a measure to ensure that on road III. Class, No. 2034 in both directions in front of the level crossing No. P647, which is currently secured only by a warning crosses, will be added the horizontal traffic sign V18 "Optical psychological brake";	



Date of occurrence	Title of the investigation, Safety recommendation
	it is recommended to adopt a measure to ensure that on road III. Class, No. 2034 in both directions in front of the level crossing No. P647, which is currently secured only by warning crosses, will be supplemented horizontal traffic sign V15 "Road sign" – A 32a "Warning cross for single-track level crossing" with possible addition of horizontal traffic sign V15 "Sign on the road" – A30 „Level crossing without barriers”.
16. 5. 2020	Level-crossing accident: km 125,250 between Hnojník – Dobruška u Frydku Mistku stations
Addressed to The Czech National Safety Authority (NSA):	
- it is recommended to adopt own measure to ensure that: - the change of the method of securing of the level crossing No. P8324 will be realized as fast as possible, the traffic torque is exceeding 10,000 and it has a value of up to 28,800 when taking into account the fiftieth highest annual traffic flow volume of traffic flow, so that in connection with the previously issued safety recommendations, this level crossing should be secured by flashing light level crossing warning system and supplemented by barriers; - the warning crosses of the level crossing No. P8324, including vertical traffic signs P 6 „Stop, give a priority!”, should be provided with a retroreflective fluorescent yellow-green background until the change of securing of the level crossing No. P8324 will be realized.	

ACCIDENT SUMMARY

Grade:	an accident.
Date and time:	6 th September 2017, 12:26 (10:26 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. 925 with the external worker.
Type of train:	the long distance passenger train No. 925.
Location:	an open line between Jaroměř and Česká Skalice stations, km 9,171.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the long distance passenger train No. 512); the external worker.
Consequences:	1 injury; total damage CZK 0,-
Direct cause:	• unauthorized entrance of the external worker into the structure gauge of the open line track while the train was moving.
Contributory factor:	none.
Underlying cause:	• inattention of the external worker when he left a work place due to a phone call.
Root cause:	none.
Recommendation:	none.



ACCIDENT SUMMARY

Grade:	an incident.
Date and time:	6 th January 2018, 0.04 (5 th January 23:04 GMT).
Occurrence type:	a trains collision.
Description:	an unauthorized movement of the shunting operation behind the signal device Se16 and its consequent collision with the train set No. 6095 and derailment.
Type of trains:	the train set No. 6095; the shunting operation.
Location:	Česká Lípa hlavní nádraží station, the shunting signal device Se16, km 45,255; a place of the collision was in the area of the switch No. 22B, km 45,243.
Parties:	Správa železniční dopravní cesty, státní organizace (the IM); České dráhy, a. s. (the RU of the train set No. 6095 and the shunting operation).
Consequences:	0 fatality, 0 injury; total damage CZK 3 365 233,-
Direct cause:	a shunting operation driver's error (he did not respect the signal „Shunting forbidden” of the shunting signal device Se16).
Contributory factors:	- an unauthorized lighting of the signal „Shunting allowed” at the signal device Se20 by the station dispatcher when the previous shunting permission was not given; - an unauthorized movement of the shunting part made by the shunting operation driver when the shunting permission was not given and the station dispatcher was not informed about the required shunting technology.
Contributory factor to the collision:	non-use of the function „General stop” of the radio equipment TRS by the station dispatcher.
Underlying cause:	failure to comply with the technological procedures of the RU and IM by the shunting operation driver (he did not follow signals from the IM).
Root cause:	none.
Recommendation:	
Addressed to The Czech National Safety Authority (NSA):	as part of its activities as the national safety authority (safety monitoring and controls) we recommend that the NSA focus on compliance with the established rules for organization and carrying out the shunting operation, including the radio communication by the individual involved employees; and also on the control activities of the IMs and Rus;

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- we recommend that NSA adopt measures that the participating IMs and RUs will ensure an increase of the control activities over compliance with the established rules for organization and carrying out the shunting operation, including the radio communication.



ACCIDENT SUMMARY

Grade:	a serious accident.
Date and time:	23 rd May 2018, 11:18 (9:18 GMT).
Occurrence type:	a train derailment.
Description:	the derailment of the rail-mounted crane with its rollover and fall from the railway embankment.
Type of train:	a shunting operation.
Location:	an open line between Mikulášovice dolní nádraží station and Panský operating control point, km 9,928.
Parties:	SŽDC, s. o. (the IM); GJW Praha, spol. s r. o. (the RU of the shunting operation); Chládek a Tintěra, Pardubice a. s. (a producer of a construction); FIRESTA-Fišer, rekonstrukce, stavby, a. s. (a producer of a construction).
Consequences:	0 fatality, 2 injuries; total damage CZK 26 971 845,-
Direct cause:	more than doubled excess of the permissible load on the track during transport of a bridge structure suspended on a jib of the rail-mounted crane which resulted in the right track level fall and the rail-mounted crane rollover.
Contributory factor:	none.
Underlying causes:	- failure to comply with the conditions for transport of the bridge structure which were determined in the IM's Transport Order (URMIZA) by the employees of one of the producer of the construction and RU; - failure to comply with the conditions for transport of the bridge structure which were determined in the Technological Regulation for transport and insertion of the bridge structure by the employees of one of the producer of the construction and RU; - failure to comply with the technological processes of the IM by the supervisor of works on track possession; - failure to comply with the technological processes of the IM and RU by the train driver (the crane operator).
Root cause:	none.
Recommendation:	not issued.



ACCIDENT SUMMARY

Grade:	accident.
Date and time:	2 nd December 2018, 10:18 (9:18 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the freight train No. 55383 with a car at the level crossing No. P2969.
Type of train:	the freight train No. 55383.
Location:	open line between Velké Březno and Ústí nad Labem-Střekov stations, the level crossing No. P2969, km 434,211.
Parties:	SŽDC, s. o. (IM); ARRIVA vlaky, s. r. o. (RU of the freight train No. 55383); driver of the car (level crossing user).
Consequences:	1 fatality; total damage CZK 2 715 500,-
Direct cause:	driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and visual and acoustic warnings were being given.
Contributory factor:	none.
Underlying causes:	- driver's failure to respect of the light and sound warning and ride at the level crossing at the time when it was forbidden; - behavior of the driver in front of the level crossing, the car driver wasn't careful enough.
Root cause:	none.
Recommendations:	
Addressed to The Czech National Safety Authority (NSA):	- it is recommended to take own measure for implementation of previously issued the safety recommendations, so that at reconstruction and modernization of railway tracks and the level crossings were designed, installed and approved only level crossing safety equipment with warning lights and barriers; - it is recommended to take own measure for change the level crossing system of the level crossing No. P2969 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.



ACCIDENT SUMMARY

Grade:	a serious accident.
Date and time:	23 rd February 2019, 5:42 (4:42 GMT).
Occurrence type:	a train collision.
Description:	the collision of two locomotives during the shunting operation.
Type of train:	a shunting operation (the locomotive series 362); a shunting operation (the locomotive series 242).
Location:	České Budějovice station, the 1. station track, km 213,331.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the shunting operations);
Consequences:	1 injury; total damage CZK 6 906 387,-
Direct cause:	failure of the brake system of the locomotive No. 91 54 7 362 055-6 due to technical fault (air leakage) of the brake units.
Contributory factors:	- effect of the climatic conditions on incorrect technical condition of the brake system of the locomotive No. 91 54 7 362 055-6 - frost at the ground - 10 °C; - failure to obey the specified technological procedure by the train driver of the locomotive No. 91 54 7 362 055-6 when performing the locomotive brake test – failure to find the proper function of the brake system before departure of the shunting operation from the place of detachment.
Underlying cause:	installation of the incorrect rubber cuffs of the pistons of the break cylinders of the brake units of the locomotive No. 91 54 7 362 055-6, the changes of their properties due to frost (solidification and reduction the diameter below the required limit) when interacting with wear – cavitation (corrosion attack of ferritic-pearlitic carbon steel) of the working wall of the brake cylinders and thus the essential release of compressed air from the brake cylinders into the atmosphere, at least from the brake unit 1P of the locomotive.
Root cause:	none.
Recommendation:	
Addressed to The Czech National Safety Authority (NSA):	it is recommended to adopt own measure to ensure execution of controls focused on the possible installation of the incorrect rubber cuffs of the pistons of the break cylinders of the brake units of the locomotives, especially series No. 362, 363, 162, 163 operated by all RUs in the Czech Republic, this should be done due to mentioned above changes caused by frost when interacting with wear – cavitation (corrosion attack of ferritic-pearlitic carbon steel) of the working wall of the brake cylinders and thus the essential release of compressed air from the brake cylinders into the atmosphere.



ACCIDENT SUMMARY

Grade:	accident.
Date and time:	26 th February 2019, 12:13 (11:13 GMT).
Occurrence type:	trains collision.
Description:	collision of a shunting operation with the regional passenger train No. 8353 standing on station track No. 5b.
Type of train:	the shunting operation; the regional passenger train No. 8353.
Location:	Jihlava station, station track No. 5b, km 198,615.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the shunting operation and the regional passenger train No. 8353).
Consequences:	0 fatality, 2 injuries; total damage CZK 0,-
Direct cause:	failure to detect loss of communication with the shunting supervisor by the train driver of the shunting operation and consequently the shunting operation did not stop immediate.
Contributory factor:	none.
Underlying cause:	failure to comply of the technological procedures by the train driver of the shunting operation in the case of an interruption of the radio connection at shunting operation.
Root cause:	none.
Recommendation:	not issued.



ACCIDENT SUMMARY

Grade:	a serious accident.
Date and time:	4 th March 2019, 12:19 (10:19 GMT).
Occurrence type:	a train collision.
Description:	an unauthorized departure of the regional passenger train No. 15912 from Ronov nad Doubravou operating control point and its consequent collision with the freight train No. 84261.
Type of train:	the regional passenger train No. 15912; the freight train No. 84261.
Location:	an open line between Ronov nad Doubravou and Žleby operating control points, km 11,118.
Parties:	SŽDC, s. o. (the IM); ČD, a. s. (the RU of the regional passenger train No. 15912); ČD Cargo, a. s. (the RU of the freight train No. 84261).
Consequences:	6 injuries; total damage CZK 1 546 600,-
Direct cause:	failure to accomplish the announcement obligation at Ronov nad Doubravou operating control point by the train driver of the regional passenger train No. 15912 and the unauthorized departure to the block section which was occupied by the freight train No. 84261.
Contributory factor:	none.
Underlying cause:	failure to comply the technological procedures by the train driver of the regional passenger train No. 15912 who did not respect the instruction of the IM.
Root cause:	none.
Recommendation:	
Addressed to the Ministry of transport (Ministry) in cooperation with the Czech National Safety Authority (NSA):	
- the Ministry and the NSA will consider the possibility to equip the railway lines with the European Rail Traffic Management System (hereinafter “ERTMS”) in simpler technical design and economically acceptable level, e. g. with the use of means and functionalities which have not yet been implemented in the Czech Republic, but which are commonly used abroad (e. g. the European Train Control System constituents on level 1 with the use of the operating mode “Limited Supervision” and others) when updating the National Implementation Plan (hereinafter “NIP”); - the Ministry and the NSA will propose a specific progress and schedule of equipment of the other lines beyond the framework of the European legislation (the lines of trans-European railway network TEN-T) and Czech legislation (the lines with a speed greater than 100 kph) with the ERTMS when updating the NIP; the NIP must be supplemented in this sense. With regard to the mentioned possibilities of using further and simpler variants of the ERTMS/ETCS implementation, the RSIO does not recommend to postpone the ERTMS implementation until 2030 or to wait until imposing additional obligations by the	

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European legislation, or to condition the ETCS implementation by the previous GSM-R implementation, the RSIO strongly discourage to bind the implementation to the final modernization or optimization of the line. When the line is modernized or optimized (beyond the lines of trans-European railway network TEN-T), the RSIO recommends to include the ETCS implementation as an integral part of it;

- considering the possibility that the ERTMS may not be implemented on some lines even in the long terms, the RSIO recommends to consider excluding them from the system covered by the requirements of the Directive on the interoperability of the rail system within the European Union and related European legislation, respectively to enable the implementation of the technical equipment that would enable to increase the safety level of movement of the railway vehicles by a technical solution adequate to the current state of the art and at the same time economically acceptable at an adequate level of safety on these lines.



ACCIDENT SUMMARY

Grade:	serious accident.
Date and time:	5 th March 2019, 8:00 (7:00 GMT).
Occurrence type:	trains collision.
Description:	unauthorized movement of the regional passenger train No. 4708 behind the signal device Lc4 with consequent collision with oncoming the regional passenger train No. 4711.
Type of train:	the regional passenger trains No. 4708 and 4711.
Location:	Brno hl. n. station, station track No. 4, main route signal device Lc4, km 143,531; Place of the trains collision was on station track No. 4, km 143,570.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger trains No. 4708 and 4711).
Consequences:	23 injuries; total damage CZK 452 393,-
Direct cause:	operational error of the train driver of the regional passenger train No. 4708 (he did not respect the signal „Stop” of the main route signal device Lc4).
Contributory factor:	absence of technical equipment which prevents a train from passing a signal in case of danger.
Underlying cause:	failure to observe the technological procedures of the IM by the train driver of the regional passenger train No. 4708 while driving the train.
Root cause:	none.
Recommendation:	not issued.



ACCIDENT SUMMARY

Grade:	incident.
Date and time:	11 th March 2019, 8:25 (7:25 GMT).
Occurrence type:	unsecured movement.
Description:	unsecured movement of the freight train No. 62502 to station track No. 37, which was occupied by shunting operation.
Type of train:	the freight train No. 62502; the shunting operation.
Location:	Most nové nádraží station, station track No. 37, light signal device Lc37, km 2,826.
Parties:	SŽDC, s. o. (IM); ČD Cargo, a. s. (RU of the freight train No. 62502 and the shunting operation).
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	not ended of interlocking shunting and failure to detection of unoccupied train route for ride of the freight train No. 62502.
Contributory factor:	cancellation of authority for shunting from interlocking plant No. 5 on station track No. 37 to interlocking plant No. 1 by the station dispatcher of interlocking plant No. 1 through signalling plant control without telephone communication with station dispatcher of interlocking plant No. 5.
Underlying cause:	failure to comply of technological procedures of IM by the station dispatcher of interlocking plant No. 5 during detection of unoccupied train route.
Root cause:	none.
Recommendation:	not issued.



ACCIDENT SUMMARY

Grade:	an accident.
Date and time:	14 th March 2019, 14:05 (13:05 GMT).
Occurrence type:	an accident to a person caused by a rolling stock in motion.
Description:	the aggravated bodily harm of the shunter who was at the head of the shunting operation during the collision with the stored wooden logs which interfered in the structure gauge of the shunting operation.
Type of train:	the shunting operation.
Location:	Rájec-Jestřebí station, the service track No. 10, km 185,203.
Parties:	SŽDC, s. o. (IM); ČD Cargo, a. s. (RU of the freight shunting operation); an unknown person who created an obstacle at the structure gauge of the 10th station track by unloading the logs.
Consequences:	1 serious injury; total damage CZK 5 000,-.
Direct cause:	• movement of the shunting operation onto the track with the insufficient walking and handling clearance.
Contributory factor:	• a lorry with a timber trailer, which was detached on the inside of the arch and partially interfering in the walking and handling clearance which was partially obstructing the view of the shunting gang; • wooden logs unloaded at the structure gauge area and interfering in the maximum loading gauge.
Underlying cause:	• failure to comply with the Contractual Carriage Terms and Conditions of the railway undertaking ČD Cargo and the Operating Rules for the loading point by the sender or other entities, which were hired by the sender.
Root cause:	none.
Recommendation:	none.



ACCIDENT SUMMARY

Grade:	an incident.
Date and time:	29 th March 2019, 10:51 (8:51 GMT).
Occurrence type:	a train derailment.
Description:	the derailment of the freight train No. 83306 (the solo running locomotive).
Type of train:	the freight train No. 83306 (the solo running locomotive).
Location:	Kostelec u Heřmanova Městce station, the switch No. 2, km 17,721.
Parties:	SŽDC, s. o. (the IM); ČD Cargo, a. s. (the RU of the freight train No. 83306); Chládek a Tintěra Pardubice. a. s. (the contractor of works).
Consequences:	0 fatality, 0 injury; total damage CZK 302 597,-
Direct cause:	• movement of the freight train No. 83306 through the switch No. 2; the right point blade of this switch was in unsatisfactory technical condition after repair works.
Contributory factor:	none.
Underlying causes:	• improperly performed repair (grinding) of the point blade of the switch No. 2 after its welding by the contractor; • failure to comply with the technological procedures connected to the control activities by the employee of the IM when taking over repair works from the contractor - failure to detect the unsatisfactory condition of the point blade of the switch No. 2 after its grinding and failure to adopt safety measures.
Root cause:	• absence of a clear and simple technological procedure, which would summarize a clear procedure and requirements for the parameters of the point blade takeover after its welding and grinding.
Recommendation:	
Addressed to The Czech National Safety Authority (NSA):	• as part of its activities as a national safety authority, we recommend that the NSA adopt measures to ensure that the infrastructure manager Správa železnic, s. o., and other IMs: ◦ will create uniform and clear technological procedures for executing controls and measurement of the point blades of the switches after their welding and grinding, and also unify these procedures into a single binding document.



ACCIDENT SUMMARY

Grade:	an accident.
Date and time:	29 th March 2019, 17:18 (15:18 GMT).
Occurrence type:	an uncontrolled movement.
Description:	the uncontrolled movement of the detached steam locomotive from the private siding track, its consequent collision with the buffer stop and derailment.
Type of train:	the solo running steam locomotive.
Location:	a place where the uncontrolled movement began – DPOV Veselí nad Moravou siding, the track No. 102; the uncontrolled movement continued over ČD, a. s. – Veselí nad Moravou siding to Veselí nad Moravou station, the track No. 9a, km 88,566 (a place of the collision with the buffer stop).
Parties:	DPOV, a. s. (the IM of Vlečka DPOV Veselí nad Moravou siding); ČD, a. s. (the IM of ČD, a. s. – Veselí nad Moravou siding and the operator of the steam locomotive boiler); SŽDC, s. o. (the IM of the Velká nad Veličkou státní hranice – Veselí nad Moravou railway line and Veselí nad Moravou station).
Consequences:	1 injury; total damage CZK 352 416,-
Direct cause:	collapse of the inflow pipe (supplying steam to the locomotive steam engine) caused by external overpressure and rupture of the wall in the place of its thinning.
Contributory factor:	absence of the medium necessary to control the locomotive servomotor return device ČKD and the pressure brake on the locomotive.
Underlying causes:	- local and considerably uneven corrosive thinning of the inflow pipe wall thickness (the inflow pipe supplies steam to the locomotive steam engine); - failure to detect critical thinning of the inflow pipe wall thickness (the inflow pipe supplies steam to the locomotive steam engine) and the incipient gradual elastic collapse of the pipe.
Recommendations:	
Addressed to The Czech National Safety Authority (NSA):	as part of its activities as a national safety authority, we recommend that NSA adopt measures to ensure that the railway undertaking ČD (the operator of the steam locomotive boiler):

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- will perform one-time inspections of the inflow pipes condition (including wall thickness measurement; the inflow pipes supply steam to the locomotive steam engine) for all operated locomotives at least during the inspections and tests of the operated locomotive boilers and also will visually detect the external and internal surface condition of these pipes during these one-time inspections;
- will ensure the replacement of the unsuitable inflow pipes (supplying steam to the locomotive steam engine) based on the evaluation and results of the one-time inspections according to the previous point;
- will completely update the existing internal regulations on the specified technical equipment – the locomotive boilers operating or will issue a new one internal regulation, or a generally valid regulation on the specified technical equipment operating, which will include the part about locomotive boilers; any of these regulations should take into account the irregular locomotive boilers operating and should ensure that the approach to the locomotive boilers operating will be generally changed;
- will update or issue the new internal regulation according to the previous point at the latest by the time when the RU will apply for the Railway Undertaking's Safety Certificate according to the section 34h of the Act No. 266/1994 Coll., when this new internal regulation will be attached to this application;
- we recommend that the NSA adopt own measures to ensure the implementation of the above safety recommendations for other relevant steam locomotive operators in the Czech Republic.



ACCIDENT SUMMARY

Grade:	serious accident.
Date and time:	13 th April 2019, 5:37 (3:37 GMT).
Occurrence type:	trains collision.
Description:	unsecured movement of the shunting operation with consequent collision with detached rolling stocks, derailment of four rolling stocks and fire.
Type of train:	the shunting operation; detached rolling stocks.
Location:	Vlečka – přístav Mělník siding, switch No. 402, km 0,761; place of collision was at switch No. 403, km 0,793; place of derailment was at km 0,795.
Parties:	České přístavy, a. s. (IM); ČD Cargo, a. s. (RU of the shunting operation).
Consequences:	1 injury; total damage CZK 19 380 241,-
Direct cause:	• incorrectly setting of shunting route.
Contributory factors:	• failure to comply running at sight among others by not adjusting the speed of the shunting operation; • failure to tracking of the signals and failure to acting on the basis of finding facts.
Underlying causes:	• failure to comply of technological procedures – unchecked the right route setting by the supervisor of the shunting operation; • failure to comply of technological procedures for steering of locomotive by the train driver.
Root cause:	none.
Recommendation:	not issued.

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ACCIDENT SUMMARY

Grade:	an accident.
Date and time:	19 th April 2019, 1:57 (18 th April, 23:57 GMT).
Occurrence type:	an accident to a person caused by a rolling stock in motion.
Description:	the disembarkation of the passenger from the moving regional passenger train No. 5021, his fall into the track and the consequent collision with the freight train No. 59099.
Type of train:	the regional passenger train No. 5021; the freight train No. 59099.
Location:	Ústí nad Orlicí station, the station track No. 1, km 256,510.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 5021); Unipetrol doprava, s. r. o. (RU of the freight train No. 59099).
Consequences:	1 fatality; total damage CZK 0,-
Direct causes:	• the passenger's effort to get off the moving regional passenger train No. 5021 at the platform area; • behavior of the train conductor who permitted departure of the regional passenger train No. 5021 with the unclosed boarding door.
Contributory factor:	• the effect of alcohol on behavior of the passenger.
Underlying causes:	• the risky behavior of the passenger who did not follow the legal regulations and the contractual conditions of carriage of the RU; • failure to ensure the technological procedures of the RU by the train conductor of the regional passenger train No. 5021 when performing the procedures for the train departure from Ústí nad Orlicí station.
Root cause:	none.
Recommendation:	not issued.



ACCIDENT SUMMARY

Grade: an incident.

Date and time: 28th June 2019, 12:51 (11:51 GMT).

Occurrence type: a train derailment.

Description: the unsecured movement of the regional passenger train No. 15048 with the consequent derailment.

Type of train: the regional passenger train No. 15048.

Location: Vysoké Mýto operational control point, the switch No. 1, km 7,489; a place of the derailment is at the switch No. 1, km 7,494.

Parties: SŽDC, s. o. (IM);
ČD, a. s. (RU of the regional passenger train No. 15048);

Consequences: 0 fatality, 0 injury;
total damage CZK 454 361,-

Direct cause:

- the train driver did not obey the instruction of the signal device Sv1 of Vysoké Mýto operational control which did not signal a signal „Ride secured”.

Contributory factor:

- the chosen method of driving by the train driver (in preparation) of the regional passenger train No. 15048 at Vysoké Mýto operational control point which was tolerated by the supervising train driver. This method of driving was based on the premise that the signal “Ride secured” would be signaled by the light signal device of the switch with the resetting point operating mechanism Sv1.

Underlying cause:

- failure to stop the regional passenger train No. 5452 in front of the self-returning switch No. 1 and also failure to control its correct position at Vysoké Mýto operation control point.

Root cause: none.

Recommendations:

Addressed to The Czech National Safety Authority (NSA):

- following the previously issued safety recommendation inherent in the Investigation report of an incident, reference number: 6-1527/2018/DI, of 5th May 2019, we recommend that the NSA adopt in cooperation with the IMs of the regional railways its own measures to ensure that the active signal “Ride secured” which is given by the light signal device will be completed with an active signal prohibiting a ride in case the switch in resetting mode is not correctly switched in normal position of the self-returning switches. This should be adopted for the switches with the resetting point operating mechanism on the tracks with the simplified train operation control where the trains are operated;
- we recommend that the NSA adopt its own measures to ensure that the existing way of acquiring of the basic general knowledge, skills and procedures which are necessary for driving locomotives and for performance of the train driver's activities will be adjusted (extended). The adjustment (extension) should focus on obligatory passing the training to acquire the initial practical habits to solve situations requiring an immediate reaction to the

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immediate threat for safe operation of the rail transport in order to avert the accidents and incidents or to reduce its consequences. This training should be passed before the practical training in train driving would start;

- we recommend that the NSA adopt its own measures to ensure that the existing valve of the rescue brake which is situated in the driver's cab will be removed from the right side of the control panel or the duplicity valve of the rescue brake will be established at such place, where it could be used by another person in the driver's cab who will sit on the rescue seat or will stand next to the train driver. This should be adopted for the rail vehicles series 814 and 914.



ACCIDENT SUMMARY

Grade:	incident.
Date and time:	8 th July 2019, 7:00 (5:00 GMT).
Occurrence type:	trains collision.
Description:	collision of the shunting operation with the service train No. 55862.
Type of train:	the service train No. 55862; the shunting operation.
Location:	Plzeň hl. n. station, station track No. 921, km 348,415.
Parties:	SŽDC, s. o. (IM); Traťová strojní společnost, a. s. (RU of the service train No. 55862); ČD, a. s. (RU of the shunting operation).
Consequences:	0 fatality, 0 injury; total damage CZK 298 180,-
Direct cause:	• failure to stop the shunting operation in front of the service train No. 55862 at running at sight.
Contributory factor:	• unauthorized set the shunting operation in motion without instruction of the shunting supervisor to start of shunting; • incorrectly issued an instruction through the radio station and consequent unauthorized turn on the signal „Shunting permitted” at the signal device Lc204; • design of locomotive 742 series – the train driver has limited view of the track while driving a long part of locomotives forward.
Underlying cause:	• failure to comply of the technological procedures of IM by the train driver of the shunting operation – failure to comply conditions for running at sight.
Root cause:	none.
Recommendation:	none.



ACCIDENT SUMMARY

Grade:	accident.
Date and time:	14 th July 2019, 14:52 (12:52 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 1793 with a car at the level crossing.
Type of train:	the regional passenger train No. 1793.
Location:	open line between Jaroměř and Smiřice stations, the level crossing No. P5223, km 35,068.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 1793); driver of the car (level crossing user).
Consequences:	4 fatalities, 0 injury; total damage CZK 450 550,-
Direct cause:	• driver's failure to respect the light and acoustic warning and driving across the level crossing No. P5223 at the time when it was forbidden and visual and acoustic warnings were being given.
Contributory factor:	none.
Underlying causes:	• driver's failure to respect of the light and sound warning and ride at the level crossing at the time when it was forbidden; • behavior of the driver in front of the level crossing, the car driver wasn't careful enough.
Root cause:	none.
Recommendation:	not issued.



ACCIDENT SUMMARY

Grade:	serious accident.
Date and time:	16 th July 2019, 7:43 (5:43 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the long distance passenger train No. 1083 with a car at the level crossing No. P65 with consequent derailment.
Type of train:	the long distance passenger train No. 1083.
Location:	Hořetice station, the level crossing No. P65, km 108,978.
Parties:	SŽDC, s. o. (IM); GW Train Regio a. s. (RU of the long distance passenger train No. 1083); driver of the car (level crossing user).
Consequences:	1 injury; total damage CZK 10 441 020,-
Direct cause:	driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and the visual and acoustic warnings were being given.
Contributory factor:	none.
Underlying causes:	- driver's failure to respect the light and acoustic warning of the level crossing safety equipment; - driver's behavior in front of the level crossing, the driver was not careful enough.
Root cause:	none.
Recommendation:	
Addressed to The Czech National Safety Authority (NSA):	- it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of railway tracks and the level crossings; - change of the level crossing system of the level crossing No. P65 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 Žatec, Department of Transport and Road Economy, as the Road Administration Office in the field of roads II. Class:	to add the traffic sign A 31a "Signal board" with the traffic sign A 30 "Level crossing without barriers".

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ACCIDENT SUMMARY

Grade:	an accident.
Date and time:	21 st July 2019, 13:50 (11:50 GMT).
Occurrence type:	a collision of the tram with an obstacle.
Description:	the collision of the tram No. 17 with the car between Trojská and Nad Trojou tram stops.
Type of train:	the tram No. 17.
Location:	Prague, a tram track between Trojská and Nad Trojou tram stops, the crossing of the tram track with the road.
Parties:	Dopravní podnik hlavního města Prahy, a. s. (the IM and RU of the tram No. 17); a driver of the car.
Consequences:	1 fatality, 0 injury; total damage 314 474,-
Direct cause:	• a car driver's failure in driving when she did not give way to the tram.
Contributory factors:	• deteriorated view conditions caused by the grown trees which separate the tram track from the road, Trojská Street; • the incorrectly placed traffic sign P 5 "Give Way to trams!" in the area before the crossing of the tram track with the road.
Underlying cause:	• a car driver's failure to devote her attention fully to driving the vehicle and her failure to monitor the situation in road traffic.
Root cause:	none.
Recommendations:	
Addressed to the Ministry of Transport:	• we recommend that the Ministry of Transport initiate the creation of the regulation (e.g. standards, amendments to the existing act, the decrees, etc.), where the rules for the installation of the traffic signs and other parameters (marking, security, determination of the methodology for calculating on sight view conditions, maintenance of greenery, etc.) will be established uniformly, unambiguously and in the binding way for the crossing of the tram tracks with the roads and for their immediate surroundings.
Addressed to the competent Rail Administrative Authorities for the tram tracks:	• we recommend that the competent Rail Administrative Authorities for the tram tracks establish and adopt the temporary measures for the crossings of the tram tracks with the road and for their immediate surroundings so that greenery will be maintained and the obstacles in the view of the tram track will be removed, until the safety recommendation addressed to the Ministry of Transport is met; if these measures are not already adopted.



ACCIDENT SUMMARY

Grade:	an incident.
Date and time:	24 th July 2019, 4:36 (2:36 GMT).
Occurrence type:	a collision with an obstacle (a fallen tree).
Description:	the collision of the regional passenger train No. 5700 with the obstacle – the fallen tree and its consequent derailment.
Type of train:	the regional passenger train No. 5700.
Location:	an open line between Nová Paka a Lázně Bělohrad stations, km 64,457.
Parties:	Správa železniční dopravní cesty, státní organizace (the IM); České dráhy, a. s. (the RU of the regional passenger train No. 5700).
Consequences:	0 fatality, 0 injury; total damage CZK 947 775 Kč,-
Direct cause:	interference with the structure gauge of the open line track by the fallen tree which grew in the impact distance from the structure gauge of the open line track.
Contributory factors:	- the inner rot of the tree; - a failure to evaluate the condition of the trees growing in the railway premises and in the railway protective area in the impact distance from the structure gauge of the open line track as the sources of danger to the safe rail system operation and rail transport operation.
Underlying cause:	a failure to remove the source of danger – the tree which grew in the railway protective area in the impact distance from the structure gauge of the open line track.
Root cause:	none.
Recommendation:	
Addressed to the Czech National Safety Authority (the NSA):	- as part of its activities resulting from its position as a national safety authority we recommend the NSA ensure that the IMs will incorporate the procedure in accordance with the section 10 paragraph 3 of Act No. 266/1994 Coll., on rail systems, as amended (hereinafter “Act No. 266/1994 Coll.”), into their internal regulations and they will apply this procedure primarily and consistently, which means that the internal regulations of the IMs will impose an obligation on the relevant employees of the IM to remove trees endangering safe operation of the railway primarily thus without using procedure in accordance with the section 10 paragraph 2 of Act No. 266/1994 Coll.; - we also recommend the NSA execute the periodic state supervisions focused on check whether there are trees or other growth around the lines, which may fall into the structure gauge of the open line track and in case they are found, whether the relevant IM has already actively carried on with his statutory obligation, that means whether he has already taken effective steps to eliminate this source of danger.
Addressed to the Czech Ministry of Transport:	

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- on the basis of negotiations with the Ministry of Agriculture and the Ministry of the Environment we recommend the Ministry of Transport enforce changes in Acts No. 114/1992 Coll., on Nature and landscape protection, as amended, and No. 289/1995 Coll., on Forests and Amendments to some Acts (the Forest Act), as amended, so that these legal regulations will be in accordance with the provisions of the section 10 of Act No. 266/1994 Coll. (which means that their collisions will not create space for different legal interpretations and subsequently for litigation), and the IMs and landowners will be able to remove and prune the vegetation endangering the safety or flow of railway transport operation or rail system operation without any administrative obstacles and time-consuming processes.



ACCIDENT SUMMARY

Grade: a serious accident.

Date and time: 28th July 2019, 16:32 (14:32 GMT).

Occurrence type: a train derailment.

Description: the derailment of the locomotive and 13 rolling stocks of the freight train No. 64520.

Type of train: the freight train No. 64520.

Location: the track line between Chodová Planá and Mariánské Lázně stations, km 422,162.

Parties: SŽDC, s. o. (the IM);
ČD Cargo, a. s. (the RU of the freight train No. 64520).

Consequences: 0 fatality, 0 injury;
total damage CZK 27 996 729,-

Direct cause:

- over-speeding by 61 kph by the train driver of the freight train No. 64520 at the level of the fixed signal device the speed indication signal N with the signal „Line speed” with the digit „30”.

Contributory factors:

- absence of technical equipment which prevents a train from over-speeding;
- failure of the train driver of the freight train No. 64520 to become acquainted with changes in the construction technical parameters of the tracks, which have a direct impact on rail transport operation safety and continuity, specifically with changes in the line characteristics tables No. 713B with the contribution of ambiguous way of specified form how the train drivers become acquainted with changes in construction technical parameters of the tracks and line characteristics tables.

Underlying cause:

- failure to comply with the technological procedures of the IM and RU by the train driver of the freight train No. 64520 when over-speeding; the maximum permitted speed was ordered by the fixed signal device the speed indication signal N with the signal „Line speed” with the digit „30”.

Root cause: none.

Recommendations:

Addressed to The Czech National Safety Authority (NSA):

- we recommend that the NSA require modification of articles of the internal regulation of the IM, SŽDC D1 concerning the location of the speed warning boards and speed indication signals. The current wording of the article 197 „*The speed warning board is a fixed signal device, which warns signalling the line speed from **the next following speed indication signal.***”, article 1331 „*The signal To expect line speed...warns signalling a speed reduction **from the next following speed indication signal** to the train driver...*” and article 1349 „*The speed warning board is installed in front of the **next following speed indication signal** at a distance at least ...*” in conjunction with the article 118

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„Warning signalling is an activity during when an instruction which draws attention to the signal that will follow is given.“, exclude the placement of other speed indication signals between these fixed signal devices, even if the signal devices are needed in railway traffic. As part of modification of these articles we recommend, for example, to consider integration of the obligation to place a repeating speed warning board at the level of the speed indication signal, which is installed between the speed warning board placed at a specified distance from the main speed indication signal which is valid for it;

- we recommend that the NSA recommend the assessment of the possibility of alternative application of installation of the remote warning devices or so-called „Repeating speed warning boards" to the infrastructure managers in cases the line speed limit is essentially reduced and over-speeding could lead to a serious accident, similar as the signal marker boards are currently placed in front of the independent warning signals at the main signal devices or repeating driver's indication signals;
- we recommend that the NSA require improvement of the clarity of the line characteristics tables from the infrastructure managers, which means highlighting current changes of the line characteristics tables, including color resolution, and highlighting those major speed reductions that may have a significant impact on rail transport operation safety so that these changes by its way of performing will step out of the general frame as warning data and the train drivers could not miss them (e. g. with indication of the state before the change becomes valid), eventually separation of essential information which are necessary because of safety from others and classification of these information in accordance with their importance;
- we recommend that the NSA require creation of a system from the railway undertakings to ensure the immediate identification and adoption of measures for the train drivers who will not become demonstrably acquainted with changes in the construction technical parameters of the tracks which have a direct impact on ensuring the rail traffic safety; this should be made before the rolling stock is set in motion;
- we recommend that the NSA require a clearly defined and excluding doubts way how to demonstrably provide acquaintance of the train drivers, especially with changes in construction technical parameters of the tracks and line characteristics tables from the railway undertakings when issuing the Railway Undertaking's Safety Certificate and performing the state supervision;
- we recommend that the NSA initiate assessment of the possibility to supplement the tabular timetable with a column (columns) containing essential data from the line characteristics tables, especially determining, resp. fundamentally limiting the line speed, especially in cases the line speed limit is permanent according to the line characteristics tables; this should be made in the interest of operation of a rail system and rail transport operation safety;
- we recommend that the NSA recommend to reduce the specified period of validity of knowledge of the track conditions for the train drivers to the railway undertakings, this should be made in relation to the fact that there are currently many reconstructions, optimizations and constructions on the Czech railways, which result in many changes in construction technical parameters of the tracks and structures on the track with a direct impact on the rail transport operation safety and fluency.

We also recommend that the NSA:

- within the scope of its powers, ensure that the adopted safety management system, especially the method for carrying out risk evaluation and implementing risk control measures, is executed by the railway undertakings so that their generally established procedures and methods will be applied more effectively to the specific operational situations;
- initiate the improvement of mutual cooperation of the infrastructure managers and railway undertakings when executing risk control, especially when there is mutual interaction at

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common interface intervening to the operation of a rail system and when there is the risk of the possible human failure in the rail transport operating by the railway undertakings' employees, e.g. through specific provisions of the contracts on rail transport operation.



ACCIDENT SUMMARY

Grade:	serious accident.
Date and time:	30 th July 2019, 18:11 (16:11 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 23477 with a lorry at the level crossing No. P7812.
Type of train:	the regional passenger train No. 23477.
Location:	open line between Moravice junction point and Hradec nad Moravicí operating control point, the level crossing No. P7812, km 4,982.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 23477); driver of the lorry (level crossing user).
Consequences:	9 injuries; total damage CZK 4 292 665,-
Direct cause:	an unauthorized entrance of the lorry at the level crossing No. P7812 at the time when the train No. 23477 was arriving.
Contributory factor:	spatial arrangement of the road crossing of road class I (No. 57) and road class III (No. 44346), which is located in movement direction of the lorry from Otice village, area Rybníčky, immediately behind the level crossing No. P7812, without connecting lanes to allow easier turning of road vehicles from the secondary road to the main road and conversely.
Underlying cause:	driver's of the lorry behavior in front of the level crossing No. P7812, he was not careful enough and he did not make sure, whether he can safely proceed over the level crossing.
Root cause:	none.
Recommendations:	
Addressed to The Czech National Safety Authority (NSA):	it is recommended to adopt own measure for 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.

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ACCIDENT SUMMARY

Grade:	an incident.
Date and time:	19 th August 2019, 8:13 (6:13 GMT).
Occurrence type:	a train collision.
Description:	the unsecured (spontaneous) and uncontrolled movement of the locomotive and its consequent collision with the detached rolling stocks.
Type of train:	the solo running locomotive; the detached rolling stocks.
Location:	„DEZA Valašské Meziříčí“, the siding track No. 305, km 1,081; a place of the collision was at the siding track No. 107, km 2,914.
Parties:	DEZA, a. s. (the IM, RU and owner of the locomotive and detached rolling stocks).
Consequences:	0 fatality, 0 injury; total damage CZK 4 330 000,-
Direct causes:	• an incorrect way of driving before stopping the locomotive No. 92 54 2 740 324-9 and failure to take the locomotive out of the first power gear while standing behind the switch No. D9; • unsecuring of the locomotive No. 92 54 2 740 324-9 against unwanted movement before leaving the train driver's cab.
Contributory factor:	none.
Underlying cause:	• driving the locomotive by a person who did not hold a valid certificate of track-guided vehicle driving competence or a valid train driving licence and this person was not even competent to drive the locomotives and to perform the work activity as a train driver at “DEZA Valašské Meziříčí” siding.
Root cause:	none.
Recommendation:	not issued.



ACCIDENT SUMMARY

Grade:	serious accident.
Date and time:	20 th August 2019, 23:54 (21:54 GMT).
Occurrence type:	trains collision.
Description:	unsecured movement of the shunting operation with consequent collision with the front door of the hall and with the special powered rolling stock, its derailment and collision of the special powered rolling stock with the back door of the hall.
Type of train:	the shunting operation; the special powered rolling stock.
Location:	Lovosice station, switch No. 37, km 495,683 – place of the unsecured movement; „TSS Lovosice” siding, track No. 421a, the hall „Malá Výtopna“, km 0,048 – place of the collision of the shunting operation with the front door of the hall and with the special powered rolling stock and derailment of the locomotive of the shunting operation; km 0,112 – place of the collision of the special powered rolling stock with the back door of the hall.
Parties:	Správa železniční dopravní cesty, státní organizace (IM of nation-wide railway); Advanced World Transport, a. s. (RU of the shunting operation); Traťová strojní společnost, a. s. (IM of the „TSS Lovosice” siding and owner of the special powered rolling stock SUM 1000.1 CS).
Consequences:	0 fatality, 0 injury; total damage CZK 88 217 660,-

Direct cause:

- the shunting operation route was made from station track No. 5 of the Lovosice station to the „TSS Lovosice” siding, ie. to a place (on the track) which the driver did not determine, as shunting manager, when arranging the shunting with the station dispatcher 2 of the Lovosice station.

Contributory factor:

- absence of applied security elements, which would not allow the person operating the station safety equipment by their automatic action, without confirmation, incorrectly choosing the end of the road to build a shunting path to a place on the track behind the contact of mutually connected tracks, which was not specified by the shunting manager.

Contributory factor of continuation accidental action:

- failure to detect the signal „Shunting forbidden” signaled by the signal device of the derailer Vk7 of the Lovosice station located in the direction of the place („Vlečka AWT – Lovosice” siding) by the driver of the shunting operation, which as an shunting manager did not determine with the station dispatcher.

Underlying causes:

- the inattention of the station dispatcher 2 of the Lovosice station at operating the station safety equipment, when by an unconscious mistake - she accidentally made a shunting route from the station track No. 5 of the Lovosice station to the „TSS Lovosice” siding, ie. to a place (on the track) that the shunting manager did not determine when arranging the shunting operation.

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- failure to perform a check of the correct position of the shunting route by the station dispatcher 2 of the Lovosice station, whether the shunting route was made to the place determined when the shunting was arranged by the shunting manager, ie. to the „Vlečka AWT - Lovosice” siding.

Root cause: none.

Recommendations:

Addressed to The Czech National Safety Authority (NSA):

- to adopt own measure, which will ensure in the case of operated and newly put into operation station safety equipment of the 3rd category - electronic interlocks, that a sequence of characters is always required by the interlocking device to confirm the obligatory documented actions of the operator, when constructing travel routes for rail vehicles through the contact of mutually mouths, carried out in the form of a shift, when the end of the shift path is on another track, a so-called confirmation sequence containing the name or number of the track on which the end of the route is located;
- to adopt own measure, which will ensure that uniform technological procedures, which are elements of the safety management system of the rail transport operation of the RU Advanced World Transport a. s. (from 2nd October 2019 PKP CARGO INTERNATIONAL a. s.), respectively at other RUs in the Czech Republic, contained sequence of such safety principles for the operation of brake, or the rolling stock sanding equipment by a driver which during the train or shunting operation is running in poor weather or adhesion conditions, ensures that the speed of the rolling stock is reduced or stopped safely at the required place, and it starting of breaking in time smaller braking performance, respectively support rolling of wheels use sanding equipment if the rolling stock is equipped of this equipment.



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ACCIDENT SUMMARY

Grade:	an accident.
Date and time:	21 st August 2019, 19:44 (17:44 GMT).
Occurrence type:	a level crossing accident.
Description:	the collision of the regional passenger train No. 15929 with the lorry at the level crossing No. P3762 and the consequent derailment.
Type of train:	the regional passenger train No. 15929.
Location:	Čáslav – Třemošnice open regional railway line, the level crossing No. P3762, km 16,382.
Parties:	SŽDC, s. o. (the IM); ČD, a. s. (the RU of the regional passenger train No. 15929); the driver of the lorry (a level crossing user).
Consequences:	0 fatality, 3 injuries; total damage CZK 2 150 000,-
Direct cause:	an unauthorized entrance of the lorry at the level crossing No. P3762 at the time when the train No. 15929 was arriving.
Contributory factor:	none.
Underlying cause:	driver's behavior in front of the level crossing, the car driver was not careful enough and he did not make sure, whether he can safely proceed over the level crossing.
Root cause:	none.
Recommendation:	
Addressed to the Municipal Authority of Chrudim as the Road Administration Authority:	
to ensure the addition of the road marking in the area of the level crossing No. P3762, especially addition of the horizontal road sign V6b, „Transverse line continuous STOP“ according to the Technical Conditions 133 (Principles for horizontal road traffic marking) which will be placed at a minimum distance of 2200 mm from the track axis according to the ČSN 73 6380.	



ACCIDENT SUMMARY

Grade:	a serious accident.
Date and time:	23 rd August 2019, 12:25 (10:25 GMT).
Occurrence type:	the level crossing accident.
Description:	the collision of the regional passenger train No. 6606 with the lorry at the level crossing P3395.
Type of train:	the regional passenger train No. 6606.
Location:	a railway track Česká Lípa hlavní nádraží – Liberec, the level crossing No. P3395, km 94,623.
Parties:	Správa železniční dopravní cesty, státní organizace (the IM); České dráhy, a. s. (the RU of the regional passenger train No. 6606); the lorry driver (a level crossing user).
Consequences:	1 injury; total damage CZK 6 599 000,-
Direct cause:	a lorry driver's failure, he did not respect the light and acoustic warning and he was driving across the level crossing at the time when it was forbidden and the visual and acoustic warnings were being given.
Contributory factor:	increased claims on the lorry driver's attention, he is obliged to give priority to oncoming vehicles when turning left and at the same time, to evaluate the condition of the warning lights of the level crossing safety equipment at high traffic intensity.
Underlying causes:	- a lorry driver's failure to respect the light and acoustic warning of the level crossing safety equipment; - a lorry driver's behavior in front of the level crossing, the driver was not careful enough.
Root cause:	none.
Recommendation:	
Addressed to the Czech National Safety Authority (the NSA):	in cooperation with the relevant IM we recommend that the NSA focus (preferentially, across the board and intensively) on problematics of the level crossings where the border of the nearest crossroad is less than 30 m away from the danger zone of the level crossing. In case these level crossings could not be canceled or solved by the interchange of a railway with a road then safety at these level crossings should be at least systematically increased, e.g. by using the measures described in point 4.2.1 of this final report.



ACCIDENT SUMMARY

Grade: an incident.

Date and time: 25th August 2019, 5:50 (3:50 GMT).

Occurrence type: an unsecured movement.

Description: the unsecured (spontaneous) and consequent uncontrolled movement of the tram No. 2 course 1 and its collision with the detached lorry.

Type of train: the tram No. 2 course 1.

Location: Olomouc, 1. máje street, the track line No. 2, km 4,648.

Parties: Dopravní podnik města Olomouce, a. s. (IM and RU of the tram);
the driver of the detached lorry.

Consequences: 0 fatality, 0 injury;
total damage CZK 1 300,-

Direct cause of the unsecured (spontaneous) movement of the rolling stock:

- failure to secure the rail vehicle against movement with the mechanical - electrohydraulic disc brake.

Direct cause of the unsecured (spontaneous) and consequent uncontrolled movement of the rolling stock:

- failure to secure the rail vehicle against movement.

Underlying cause of the unsecured (spontaneous) movement of the rolling stock:

- failure to operate of the mechanical - electrohydraulic disc brakes, when the cause of malfunction or technical defect of the mechanical - electrohydraulic disc brakes of the EVO type could not be clearly detected.

Underlying causes of unsecured (spontaneous) and consequent uncontrolled movement of the rolling stock:

- failure to operate of the mechanical - electrohydraulic disc brakes, when the cause of malfunction or technical defect of the mechanical - electrohydraulic disc brakes of the EVO type could not be clearly detected;
- deactivation of the emergency brake (rail brakes) by the operation of the "STEERING SWITCH" made by the tram driver who mistakenly believed that a stationary rail vehicle would be secured against movement by switching off the steering.

Root cause of the unsecured (spontaneous) movement of the rolling stock:

- none.

Root cause of the unsecured (spontaneous) and consequent uncontrolled movement of the rolling stock:

- the absence of a procedure for securing the stationary (detached) rolling stock against movement (spontaneous movement in the direction of the downgrade) after the previous failure of the mechanical - electrohydraulic disc (parking) brake.

Recommendations:

Addressed to The Czech National Safety Authority (NSA):

- to adopt own measure, which ensure:

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- that the connection of the circuit breakers FA11 and FA13 and connection of the control of the non-adhesion rail electromagnetic brakes will be modified on all manufactured EVO type rail vehicles, where the connection of the control of the non-adhesion rail electromagnetic brakes corresponds to the design according to the technical conditions of the EVO 1 railcar valid from May 10, 2017, so that these brakes could be activated even when the steering will be switched off (provided the vehicle batteries will be switched on);
- all rail vehicles of the EVO series will be equipped with the mechanical means for securing the vehicles against movement, e. g. by the locking wedges, in case the corresponding brake rating of the mechanical - electrohydraulic disc brake which should stop the rail vehicle and protect it against movement will not occur.



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ACCIDENT SUMMARY

Grade:	an incident.
Date and time:	29 th August 2019, 16:39 (14:39 GMT).
Occurrence type:	an unauthorized movement.
Description:	the unauthorized movement of the shunting operation behind the shunting signal device Se81 with the signal „Shunting forbidden” and the consequent ride of the shunting operation into the train route made for the regional passenger train No. 5914.
Type of train:	the regional passenger train No. 5914; the shunting operation.
Location:	Kolín station, the station track No. 116a, the shunting signal device Se81, km 298,065.
Parties:	SŽDC, s. o. (the IM); ČD, a. s. (the RU of the shunting operation and the regional passenger train No. 5914);
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	• failure to respect the signal „Shunting forbidden” given by the shunting signal device Se81 (situated at Kolín station) by the supervisor of the shunting operation who was at the head of the shunting operation.
Contributory factor:	none.
Underlying cause:	• inattention of the supervisor of the shunting operation (who was at the head of the shunting operation), who did not instruct the train driver of the shunting operation to stop in time, so that the shunting operation was not able to stop safely at latest at the end of the shunting operation route, ie. in front of the shunting signal device Se81.
Root cause:	none.
Recommendation:	not issued.



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ACCIDENT SUMMARY

Grade:	incident.
Date and time:	31 st August 2019, 15:34 (13:34 GMT).
Occurrence type:	unsecured movement.
Description:	unsecured movement of the regional passenger train No. 14226 with consequent derailment.
Type of train:	the regional passenger train No. 14226.
Location:	Lípa nad Dřevnicí station, switch No. 1sv, km 18,931.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 14226).
Consequences:	0 fatality, 0 injury; total damage CZK 791 897,-
Direct cause:	• permission for the train movement over the switch in resetting mode which was not switched to the end position for the priority direction of the train movement.
Contributory factor:	none.
Underlying cause:	• failure to comply of the technological procedures of the IM for ensure of safety while driving the train in time of disorder of normal position of self-returning switch.
Root cause:	none.
Recommendation:	not issued.



ACCIDENT SUMMARY

Grade:	serious accident.
Date and time:	6 th September 2019, 9:35 (7:35 GMT).
Occurrence type:	the level crossing accident.
Description:	collision of the regional passenger train No. 2522 with a lorry at the level crossing No. P5674 with consequent derailment.
Type of train:	the regional passenger train No. 2522.
Location:	Praha-Uhřetěves station, the level crossing No. P5674, km 169,968.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 2522); driver of the lorry (level crossing user).
Consequences:	6 injuries; total damage CZK 50 763 609,-
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:	failure to escape from the area of the level crossing – failure to break the level crossing barriers by the lorry driver, when the lorry was trapped on the level crossing before arrival of the train.
Underlying causes:	- driver's failure to respect of the light and acoustic warning of the level crossing safety installation; - behavior of the driver in front of the level crossing, the lorry driver wasn't careful enough.
Root cause:	none.
Recommendations:	
Addressed to The Czech National Safety Authority (NSA):	
- in cooperation with the Czech Ministry of Transport to initiate change of the Czech technical standard CSN 34 2650 ed. 2 „Railway signaling equipment - Level crossing safety equipment“, as amended so that at level crossings secured by light level crossing system with two half barriers on both sides that go down simultaneously against each other, apply as a matter of priority the system where the barrier on the driver side goes down sooner than the opposite one immediately after expiring warning time; - in cooperation with the Czech Ministry of Transport to initiate change of the Czech technical standard CSN 34 2650 ed. 2 „Railway signaling equipment - Level crossing safety equipment“ as amended so that the signal red and white paint on the inside of the barriers was replaced by a different sign (which does not evoke a ban), or encouraging the driver to leave the level crossing by breaking the barriers.	
Addressed to the Prague City Hall, as the Road Administration Authority:	
to ensure the addition of the road marking in the area of the level crossing No. P5674, especially addition of the horizontal road sign V5, „Transverse line continuous“ according to the Technical Conditions 133 (Principles for horizontal road traffic marking).	



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ACCIDENT SUMMARY

Grade:	accident.
Date and time:	12 th September 2019, 9:30 (7:30 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 5505 with a car at the level crossing No. P5391.
Type of train:	the regional passenger train No. 5505.
Location:	open line between Hněvčeves and Všešary stations, level crossing No. P5391, km 16,178.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 5505); driver of the car (level crossing user).
Consequences:	1 fatality, 0 injury; total damage CZK 205 000,-
Direct cause:	an unauthorized entrance of the car at the level crossing No. P5391 at the time when the train No. 5505 was arriving.
Contributory factor:	none.
Underlying cause:	driver's behavior in front of the level crossing, the car driver was not careful enough and he did not stop the car in front of the level crossing on command traffic sign "Stop sign" at a place where he had a proper view of the railway line and he did not make sure, whether he can safely proceed over the level crossing.
Root cause:	none.
Recommendations:	
Addressed to The Czech National Safety Authority (NSA):	
it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only the level crossing safety equipment with warning lights and barriers will be designed, installed and approved during the reconstruction and modernization of the railway tracks.	
Addressed to the Municipal authority of Sovětske:	
to ensure the repair of the tertiary road surface on plot number 589/1 with the goal – remove the pothole located in the immediate proximity of the level crossing No. P5391 in the driving direction to the Sovětske village.	



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ACCIDENT SUMMARY

Grade:	an incident.
Date and time:	30 th September 2019, 6:55 (4:55 GMT).
Occurrence type:	a train derailment.
Description:	the derailment of one rolling stock of the freight train No. 80301.
Type of train:	the freight train No. 80301.
Location:	Liberty Ostrava siding, the 18. siding track, 2 meters behind the switch No. 65.
Parties:	Liberty Ostrava, a. s. (IM); ČD Cargo, a. s. (RU of the freight train No. 80301).
Consequences:	0 fatality, 0 injury; total damage CZK 48 000,-
Direct cause:	the loss of the vertical wheel effort of the right wheel of the first axle (in the direction of the ride) of the rear bogie of the rolling stock CZ-ČDC 81 54 6995 040-7 series Faccs295.2 caused by the defects in the track geometry parameters of the track in the switch No. 65 and the adjacent part of the track No. 18 at Liberty Ostrava siding.
Contributory factor:	none.
Underlying cause:	failure to ensure the regular checks and maintenance of the railway at the place of the incident.
Root cause:	none.
Recommendation:	not issued.



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ACCIDENT SUMMARY

Grade:	accident.
Date and time:	1 st October 2019, 7:31 (5:31 GMT).
Occurrence type:	a level crossing accident.
Description:	collision of the regional passenger train No. 4507 with a car at the level crossing.
Type of train:	the regional passenger train No. 4507.
Location:	Hrušovany nad Jevišovkou-Šanov station, level crossing No. P7115, km 0,645.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 4507); driver of the car (level crossing user).
Consequences:	2 fatalities; total damage CZK 343 000,-
Direct cause:	• driver's failure to respect the light and acoustic warning and driving across the level crossing at the time when it was forbidden and the visual and acoustic warnings were being given.
Contributory factor:	none.
Underlying causes:	• driver's failure to respect the light and acoustic warning of the level crossing safety equipment; • driver's behavior in front of the level crossing, the driver was not careful enough.
Root cause:	none.
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 crossings No. P7115 and P3926 to a level crossing system equipped with barriers, which from the point of view as an optical barrier will reduce probability of the driver's entrance at the level crossing when a driver does not respond to the light and acoustic warning of the level crossing safety equipment.



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ACCIDENT SUMMARY

Grade:	incident.
Date and time:	2 nd October 2019, 18:00 (17:00 GMT).
Occurrence type:	train derailment.
Description:	unsecured movement of the regional passenger train No. 18809 with consequent derailment.
Type of train:	the regional passenger train No. 18809.
Location:	railway track Horní Dvořiště state border – České Budějovice, Omlenice station, switch No. 1, km 79,550.
Parties:	SŽDC, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 18809).
Consequences:	0 fatality, 0 injury; total damage CZK 89 381,-
Direct cause:	• change of position of the switch No. 1, when the rolling stocks of the train No. 18809 were on the switch.
Contributory factor:	none.
Underlying cause:	• failure to comply of technological procedures of the IM at cancellation and preparation of the train route.
Root cause:	none.
Recommendation:	not issued.



ACCIDENT SUMMARY

Grade:	a serious accident.
Date and time:	20 th October 2019, 2:08 (1:08 GMT).
Occurrence type:	a level crossing accident.
Description:	the collision of the long distance passenger train No. 575 with the car at the level crossing No. P6803.
Type of train:	the long distance passenger train No. 575.
Location:	a nation-wide railway, Odb. Brno-Židenice – Svitavy, the track line No. 1, the level crossing No. P6803, km 182,324.
Parties:	SŽDC, s. o. (the IM); ČD, a. s. (the RU of the long distance passenger train No. 575); the driver of the car (a level crossing user).
Consequences:	0 fatality, 0 injury; total damage CZK 12 149 072,-
Direct cause:	a deadlock of the car in the level crossing area on the right side in driving direction after leaving the level crossing surface.
Contributory factor:	a night time and a heavy falling fog distorted the deteriorated view from the car to the surface of the level crossing.
Underlying cause:	failure to comply with the car driver's obligations to adapt his behavior and his way of driving to the traffic technical road condition, weather conditions and view from the car when participating in road traffic.
Root cause:	none.
Recommendation:	

Addressed to the Municipal Authority of Blansko as the Road Administration Authority in the cases of the roads of 3rd class and to the Czech National Safety Authority (the NSA):

- it is recommended to ensure modification of the existing road marking in front of the level crossing No. P6803 in the direction of ride from Dolní Lhota and addition of the road marking with the horizontal road sign No. V4 „Guiding line” which will be placed at the appropriate distance in front of, over and behind the level crossing.



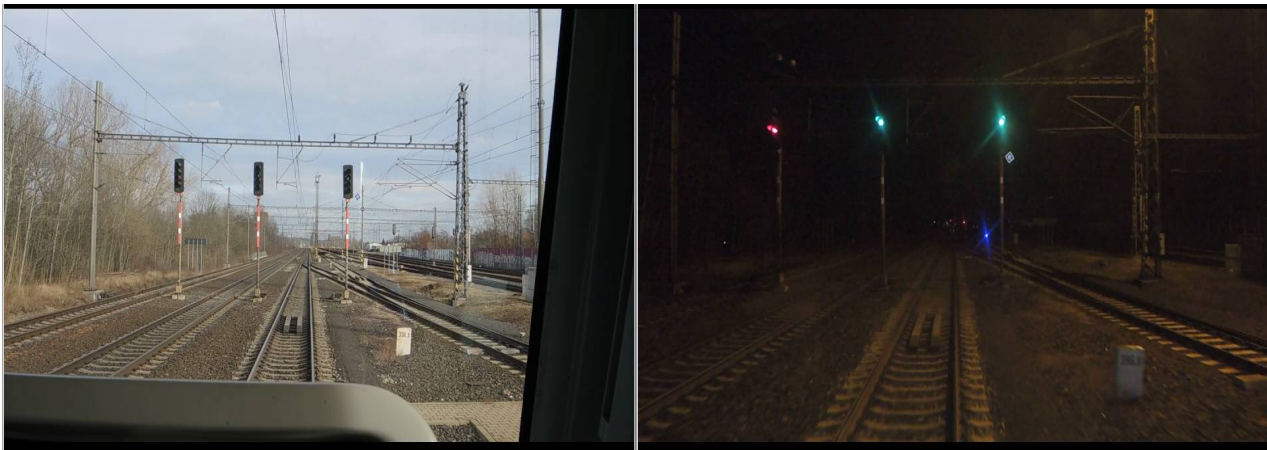
ACCIDENT SUMMARY

Grade:	an incident.
Date and time:	18 th November 2019, 19:20 (18:20 GMT).
Occurrence type:	an unauthorized movement.
Description:	the unauthorized movement of the shunting operation behind the signal device „Limit of shunting indicator“ and its consequent ride into open line section occupied by the locomotive train No. 57478.
Type of train:	the locomotive train No. 57478; the shunting operation.
Location:	Děčín východ dolní nádraží station, km 457,771.
Parties:	SŽDC, s. o. (IM); IDS CARGO a. s. (RU of the shunting operation and the locomotive train No. 57478).
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	• failure to respect the instruction of the IM – the signal „shunting forbidden“ given by the signal device „Limit of shunting indicator“.
Contributory factor:	• the unauthorized movement of the shunting operation when the permission to shunt was not given. • the issued order to make a train route without previous permission to shunt.
Underlying cause:	• failure to ensure the technological procedures of the IM – the movement of the shunting operation behind the signal device „Limit of shunting indicator“ without the permission of the station dispatcher.
Root cause:	none.
Recommendation:	not issued.



ACCIDENT SUMMARY

Grade:	an incident.
Date and time:	27 th November 2019, 20:05 (19:05 GMT).
Occurrence type:	an unauthorized movement.
Description:	the unauthorized movement of the freight train No. 57506 behind the main departure signal device S0a with the consequent trailing of the switch no. 6 and the ride into the train route of the long distance passenger train No. 285.
Type of train:	the freight train No. 57506; the long distance passenger train No. 285.
Location:	Praha-Běchovice station, the station track No. 0a, the main departure signal device S0a km 394,592.
Parties:	Správa železniční dopravní cesty, státní organizace (the IM); ČD Cargo, a. s. (the RU of the freight train No. 57506); České dráhy, a. s. (the RU of the long distance passenger train No. 285).
Consequences:	0 fatality, 0 injury; total damage CZK 310 855,-
Direct cause:	failure to respect the signal „Stop” of the main (departure) signal device S0a at Praha-Běchovice station by the train driver of the freight train No. 57506.
Contributory factor:	absence of technical equipment which prevents a train from passing a signal in case of danger.
Underlying causes:	- unintentional mistake of the train driver of the train Pn 57506, when observing the signals of the main signal devices at Praha-Běchovice station, the train driver of the train Pn 57506 erroneously interchanged the main (departure) signal S1a, which signaled „Speed 100 kph and green signal”, for the main (departure) signal device S0a, which signaled the signal „Stop”, in the dark; - prioritizing the activities which are related to driving of the locomotive over observation of the railway line and monitoring operation of the cab signalling by the train driver.
Root cause:	none.
Recommendation:	
Addressed to the Czech Ministry of Transport (hereinafter „the Ministry”) in cooperation with The Czech National Safety Authority (the NSA):	
we recommend the Ministry in cooperation with the NSA initiate an amendment and supplementing to content of the count 1.7 of the Annex 3 to the Decree No. 16/2012 Coll., so that information on relevant accidents and incidents that have occurred on the defined railway track or its part (it is important not to relate this information to only one RU, but to all accidents and incidents on the specific railway track) will be amended.	



ACCIDENT SUMMARY

Grade:	incident.
Date and time:	17 th January 2020, 5:47 (4:47 GMT).
Occurrence type:	train derailment.
Description:	derailment of the regional passenger train No. 7122.
Type of train:	the regional passenger train No. 7122.
Location:	Krásný Jez operational control point, switch No. 1sv, km 37,485.
Parties:	Správa železnic, státní organizace (IM); GW Train Regio a.s. (RU of the regional passenger train No. 7122).
Consequences:	0 fatality, 0 injury; total damage CZK 838 915,-
Direct cause:	the train driver did not obey the instruction of the signal device Sv1 before entering on the switch No. 1sv at Krásný Jez operational control point.
Contributory factor:	none.
Underlying cause:	failure to comply of the technological procedures of IM, due to failure to observe of signal device Sv1 and failure to act according to the findings (failure to stop the regional passenger train No. 7122 in front of the switch No. 1sv and also failure to control its correct position).
Root cause:	none.
Recommendation:	
Addressed to The Czech National Safety Authority (NSA):	following the previously issued safety recommendation reference number 720/2016/DI, of 9th November 2016, to adopt in cooperation with the IMs of the regional railways its own measures to ensure adjustment of the electronic control and diagnostic system REMOTE 98 so that the loss of the preferred position of the switch with the resetting point operating mechanism is indicated not only optically on the screen of the monitor of the uniform operating workplace, but also by displaying the window of fault messages with their listing, and further acoustically.



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ACCIDENT SUMMARY

Grade:	accident.
Date and time:	18 th February 2020, 10:52 (9:52 GMT).
Occurrence type:	accident to person caused by rolling stock in motion.
Description:	collision of the freight train No. 44251 with the external worker in the operated railway infrastructure.
Type of train:	the freight train No. 44251.
Location:	open line between Lichkov station and Lichkov state border, km 112,379.
Parties:	Správa železnic, státní organizace (IM); ČD Cargo, a. s. (RU of the freight train No. 44251); the external worker.
Consequences:	1 fatality; total damage CZK 0,-
Direct cause:	entry of the external worker into the structure gauge of operated open line track while the freight train No. 44251 was moving around the workplace.
Contributory factor:	behavior of the external worker affected by an addictive substance at the time of the work shift during which accident occurred.
Underlying cause:	failure to comply of the external worker obligation to take reasonable care of his safety and health, do not enter into the operated railway infrastructure without concentration on traffic and during the movement of the train to monitor the passing rolling stocks.
Root cause:	none.
Recommendation:	not issued.



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ACCIDENT SUMMARY

Grade:	serious accident.
Date and time:	21 st February 2020, 15:11 (14:11 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 15655 with a lorry at the level crossing with consequent derailment.
Type of train:	the regional passenger train No. 15655.
Location:	open line between Městec Králové and Chlumec nad Cidlinou stations, level crossing No. P4571, km 9,040.
Parties:	Správa železnic, státní organizace (IM); České dráhy, a. s. (RU of the regional passenger train No. 15655); driver of the lorry (level crossing user).
Consequences:	0 fatality, 6 injuries; total damage CZK 3 171 617,-
Direct cause:	an unauthorized entrance of the lorry at the level crossing No. P4571 at the time when the train No. 15655 was arriving.
Contributory factor:	none.
Underlying cause:	driver's behavior in front of the level crossing, the lorry driver was not careful enough and he did not stop the car in front of the level crossing on command traffic sign „Stop sign“ at a place where he had a proper view of the railway line and he did not make sure, whether he can safely proceed over the level crossing.
Root cause:	none.
Recommendation:	
Addressed to The Czech National Safety Authority (NSA):	it is recommended to adopt own measure for implementation of the previously issued safety recommendations, so that only the level crossing safety equipment with warning lights and barriers will be designed, installed and approved (including the level crossing No. P4571) during the reconstruction and modernization of the railway tracks.



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ACCIDENT SUMMARY

Grade:	incident.
Date and time:	28 th February 2020, 9:15 (8:15 GMT).
Occurrence type:	train derailment.
Description:	unsecured movement of the service train No. 57394 with consequent derailment and collision with a standing special rolling stock.
Type of train:	the service train No. 57394; the special rolling stock.
Location:	Řevnice station, switch No. 9, km 23,834; place of the derailment was at the derailer Vk2, station track No. 5, km 23,777.
Parties:	Správa železnic, s. o. (IM and RU of the service train No. 57394).
Consequences:	0 fatality, 0 injury; total damage CZK 237 987,-
Direct cause:	an unintended movement of the service train No. 57394 through the switch No. 9 which was switched into the wrong (branching-off) direction to station track No. 5.
Contributory factor:	none.
Underlying cause:	disconnection of the switch No. 9 of the Řevnice station from mechanical point machine and from central creation of the train routes without taking appropriate traffic measures within the repair works.
Root cause:	none.
Recommendation:	not issued.



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ACCIDENT SUMMARY

Grade:	an accident.
Date and time:	28 th February 2020, 6:13 (5:13 GMT).
Occurrence type:	an accident to a person caused by the rolling stock in motion.
Description:	the collision of the regional passenger train No. 18402 with the worker (the employee of the infrastructure manager).
Type of train:	the regional passenger train No. 18402.
Location:	a line between Horní Cerekev and Tábor stations, Tábor station, the switch No. 301, km 68,891.
Parties:	Správa železnic, státní organizace (the IM); České dráhy, a. s. (the RU of the regional passenger train No. 18402).
Consequences:	1 fatality; total damage CZK 6 140,-
Direct cause:	the employee of the IM was moving in the operated train route and he did not leave the structure gauge while the train No. 18402 was moving.
Contributory factor:	none.
Underlying causes:	- failure to comply the established technological procedures of the IM for activities in the operated non-excluded track when employees move, stay and make activities in this track; - failure to check and require the fulfillment of the ordered safety measures which result in situation when safety of the killed employee of the IM during his movement, stay and activity in the track was not ensured.
Root cause:	none.
Recommendation:	not issued.



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ACCIDENT SUMMARY

Grade:	accident.
Date and time:	27 th April 2020, 9:10 (7:10 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 27413 with a car at the level crossing.
Type of train:	the regional passenger train No. 27413.
Location:	open line between Heřmanova Huť operating control point and Nýřany station, the level crossing No. P647, km 1,856.
Parties:	Správa železnic, s. o. (IM); České dráhy, a. s. (RU of the regional passenger train No. 27413); driver of the car (level crossing user).
Consequences:	4 fatalities, 1 injury; total damage CZK 776 200,-
Direct cause:	• an unauthorized entrance of the car at the level crossing No. P647 at the time when the train No. 27413 was arriving.
Contributory factor:	none.
Underlying cause:	• the car driver was not careful in front of the level crossing No. P647 and he did not convince if he could safely proceed over the level crossing.
Root cause:	none.
Recommendations:	
Addressed to The Czech National Safety Authority (NSA):	
• it is recommended to adopt own measure for 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 level crossings, including the level crossing No. P647; • it is recommended to adopt own measure to ensure that at the level crossing No. P647 which is currently secured only by a warning cross will be the road markings at this level crossing immediately equipped with a yellow-green retroreflective substructure; • it is recommended to adopt own measure to ensure that in the sighting distances for road vehicles at the level crossing No. P647 will not to adjacent cultivated fields sown with crops that restrict the view of the track by their height, i.e. that sighting distances will be provided for drivers of road vehicles in all quadrants of level crossing.	
Addressed to the Municipal Authority of Nýřany as the Road Administration Office in cases of the III. class roads:	
• it is recommended to adopt a measure to ensure that vertical traffic sign A 31a „Signal board” (240 m) supplemented by traffic sign A 30 „Level crossing without barriers”, A 31b „Signal board” (160 m) and A 31c „Signal board” (80 m) located in front of the level crossing No. P647 in both directions, will be equipped with a yellow-green retroreflective substructure;	

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- it is recommended to adopt a measure to ensure that on road III. Class, No. 2034 in both directions in front of the level crossing No. P647, which is currently secured only by a warning crosses, will be added the horizontal traffic sign V18 "Optical psychological brake";
- it is recommended to adopt a measure to ensure that on road III. Class, No. 2034 in both directions in front of the level crossing No. P647, which is currently secured only by warning crosses, will be supplemented horizontal traffic sign V15 "Road sign" – A 32a "Warning cross for single-track level crossing" with possible addition of horizontal traffic sign V15 "Sign on the road" – A30 „Level crossing without barriers".



ACCIDENT SUMMARY

Date and time:	16 th May 2015, 7:41 (5:41 GMT).
Occurrence type:	a level crossing accident.
Description:	the collision of the regional passenger train No. 12818 with the car at the level crossing No. P8324 and its consequent derailment.
Type of train:	the regional passenger train No. 12818.
Location:	a railway track Český Těšín – Frýdek-Místek, the level crossing No. P8324, km 125,250.
Parties:	Správa železnic, státní organizace (the IM); České dráhy, a. s. (the RU of the regional passenger train No. 12818); the car driver (a level crossing user).
Consequences:	2 injuries; total damage CZK 1 738 800,-
Causal factor:	• an unauthorized entrance of the car at the level crossing No. P8324 at the time when the train No. 12818 was arriving, caused by behavior of the car driver, who did not respect the traffic sign „Stop, give a priority!” and did not stop the car at a place where she would have a proper view of the track and did not make sure whether she could safely pass the level crossing.
Contributing factor:	none
Systemic factor:	none
Recommendation:	
Addressed to the Czech National Safety Authority (the NSA):	• it is recommended to adopt own measure to ensure that: ◦ the change of the method of securing of the level crossing No. P8324 will be realized as fast as possible, the traffic torque is exceeding 10,000 and it has a value of up to 28,800 when taking into account the fiftieth highest annual traffic flow volume of traffic flow, so that in connection with the previously issued safety recommendations, this level crossing should be secured by flashing light level crossing warning system and supplemented by barriers; ◦ the warning crosses of the level crossing No. P8324, including vertical traffic signs P 6 „Stop, give a priority!”, should be provided with a retroreflective fluorescent yellow-green background until the change of securing of the level crossing No. P8324 will be realized.



Annex – Summaries of investigations completed in 2020

ACCIDENT SUMMARY

Date and time: 18th June 2020, 8:05 (6:05 GMT).
Occurrence type: train derailment.
Description: derailment of the regional passenger train No. 6704.
Type of train: the regional passenger train No. 6704.
Location: Obrnice station, switch No. 25a, km 117,939.
Parties: Správa železnic, státní organizace (IM);
Die Länderbahn CZ s. r. o. (RU of the regional passenger train No. 6704).
Consequences: 0 fatality, 0 injury;
total damage CZK 138 701,-
Causal factor:

- unauthorized change of position of the switch No. 25a at the time, when the rolling stocks of the train No. 6704 were on the switch, which was preceded by a failure to detect whether the train No. 6704 has arrived whole at the designated track and premature cancellation of train route for this train.

Contributing factor: none.
Systemic factor: none.
Recommendation: not issued.



Annex – Summaries of investigations completed in 2020

ACCIDENT SUMMARY

Date and time:	18 th June 2020, 14:46/14:59 (12:46/12:59 GMT).
Occurrence type:	accident to person caused by rolling stock in motion.
Description:	collision of the regional passenger train No. 9143 or No. 9419 with an external worker at operated open line track No. 2.
Type of train:	the regional passenger train No. 9143 or No. 9419.
Location:	open line between Lysá nad Labem station and Káraný junction point, track line No. 2, km 3,645.
Parties:	SŽ, s. o. (IM); ČD, a. s. (RU of the regional passenger train No. 9143 and No. 9419); the external worker (employee of maintenance service company ANIRAM, s. r. o.).
Consequences:	1 fatality, 0 injury; total damage CZK 0,-
Causal factor:	• unauthorized entry of the external worker performing the activity as a security patrol into the structure gauge of operated open line track No. 2 while the regional passenger train No. 9143 or No. 9419 was moving around the working place.
Contributing factor:	none.
Systemic factor:	none.
Recommendation:	not issued.



Annex – Summaries of investigations completed in 2020

ACCIDENT SUMMARY

Date and time: 25th June 2020, 1:20 (24th June 2020, 23:20 GMT).
Occurrence type: the train derailment.
Description: derailment of the freight train No. 86658.
Type of train: the freight train No. 86658.
Location: Most nové nádraží station, switch No. 32, km 2,251.
Parties: Správa železnic, státní organizace (IM);
ČD Cargo, a. s. (RU of the freight train No. 86658).
Consequences: 0 fatality, 0 injury;
total damage CZK 904 295,-
Direct cause:

- 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 freight train No. 86658.

Contributory factor: none.
Root cause: none.
Recommendation: not issued.



Annex – Summaries of investigations completed in 2020

ACCIDENT SUMMARY

Date and time: 5th August 2020, 8:18 (6:18 GMT).

Occurrence type: level crossing accident.

Description: collision of the freight train No. 60430 with a car at the level crossing.

Type of train: the freight train No. 60430.

Location: open line between Jihlávka and Počátky-Žirovnice stations, level crossing No. P6189, km 49,634.

Parties: Správa železnic, státní organizace (IM);
ČD Cargo, a. s. (RU of the freight train No. 60430);
driver of the car (level crossing user).

Consequences: 1 fatality, 0 injury;
total damage CZK 224 459,-

Causal factor:

- an unauthorized entrance of the car at the level crossing No. P6189 at the time when the train No. 60430 was arriving, caused by behavior of the car driver, who did not respect the traffic sign „Stop, give a priority!” and did not stop the car at a place where she would have a proper view of the track and did not make sure whether she could safely pass the level crossing.

Contributing factor: none.

Systemic factor: none.

Recommendation: not issued.

