



Czech Republic



The Rail Safety
Inspection Office

NIB ANNUAL REPORT 2022

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

The Rail Safety Inspection Office

Czech Republic

September 2023

č. j. 375/2023/DI-2



PREFACE TO THE REPORT

A National Investigation Body operates in the Czech Republic – The Rail Safety Inspection Office – conducting independent investigation of the causes and circumstances of railway accidents and incidents according to Directive (EU) 2016/798, the principles and requirements of which have been implemented into the national legislation. The objective of the investigation of the causes and circumstances of railway accidents and incidents is to increase the safety of railways.

This Annual Report is an annual report issued by the National Investigation Body of the Czech Republic, The Rail Safety Inspection Office, for 2022, pursuant to Art. 24(3) of Directive (EU) 2016/798. It comprises information regarding:

- the National Investigation Body
- the system of investigation of railway accidents and incidents
- the investigations of accidents and incidents completed in 2022
- the safety recommendations issued



CONTENTS

PREFACE TO THE REPORT.....	I
1 INTRODUCTION TO THE INVESTIGATION BODY.....	1
1.1 Legal framework.....	1
1.2 Role and Mission.....	1
1.3 Organisation.....	2
1.4 Organisational flow.....	3
2 INVESTIGATION PROCESSES.....	4
2.1 Cases to be investigated.....	4
2.2 Institutions involved in investigations.....	4
2.3 Investigation process or approach of the NIB.....	4
3 INVESTIGATIONS.....	6
3.1 Overview of investigations completed in 2022 identifying key trends.....	6
3.2 Investigations completed and commenced in 2022.....	6
3.3 Research studies (or Safety Studies) commissioned and completed in 2022.....	9
3.4 Summaries of investigations completed in 2022.....	10
3.5 Comment and introduction or background to the investigations.....	10
3.6 Accidents and incidents investigated during last five years (in 2018–2022).....	11
4 RECOMMENDATIONS.....	12
4.1 Short review and presentation of recommendations.....	12
4.2 Recommendations issued in 2022.....	18

ANNEXES

Summaries of investigations completed in 2022



1 INTRODUCTION TO THE INVESTIGATION BODY

1.1 Legal framework

Directive (EU) 2016/798 was implemented into the national legislation of the Czech Republic by Act 266/1994 Coll., on Railways, as amended, and the subsequent issue of implementing Decree 376/2006 Coll., on the System of Safe Railway Operation and Railway Transport Operation and Procedures Following Railway Accidents and Incidents, as amended.

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

- serious accidents
- accidents
- incidents

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

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

1.2 Role and Mission

The National Investigation Body (NIB) was established in the Czech Republic on 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) and where needed by reason of the character of the recommendation, to the European Union Agency for Railways, other administration bodies and authorities or other relevant bodies of different member states.



1.3 Organisation

On 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

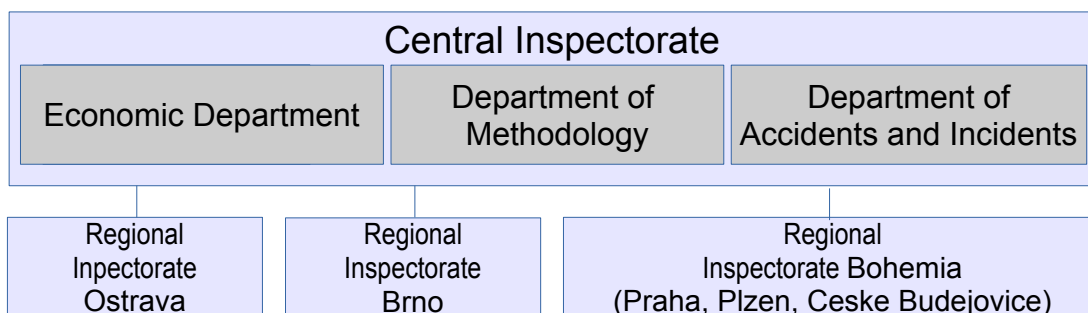
The Rail Safety Inspection Office has a total of **38 employees** in five cities of the Czech Republic (Ostrava, Brno, Praha, Plzen, Ceske Budejovice). It comprises of the Central Inspectorate and three regional inspectorates covering the area of the entire country. The Central Inspectorate consists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

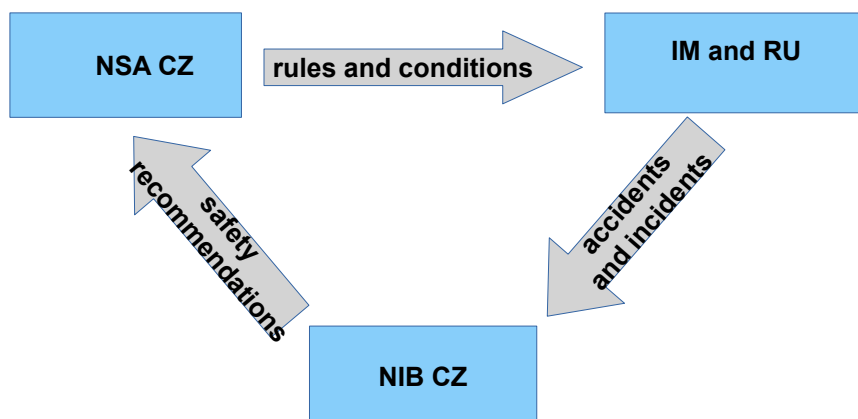
The structure of railway sector in the Czech Republic and relationships among the parties involved are defined in Act 266/1994 Coll., on Railways, as amended, and its implementing regulations. The legislation applies to the following transport systems:

- 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, authorization and regulation of railway and railway transport operation and performing state supervision of railways, according to the national legislation. The Rail Safety Inspection Office is the National Investigation Body independent of any party in the railway sector.

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

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





2 INVESTIGATION PROCESSES

2.1 Cases to be investigated

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

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

When making decision whether to investigate or not, The Rail Safety Inspection Office takes into account the set legal requirements (seriousness, repeating, impact on railway safety, requests from infrastructure managers, railway undertakings, the national safety authority or the Member States) as well as possibility to learn safety relevant lessons from the accident or incident.

2.2 Institutions involved in investigations

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

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

2.3 Investigation process or approach of the NIB

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

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

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



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

When notified about the occurrence of accident or incident by an infrastructure manager or railway undertaking, The Rail Safety Inspection Office will decide whether it will immediately go to the accident-site or not. The investigation of accident or incident may be launched immediately after the occurrence and/or later, in reaction to specific circumstances. If The Rail Safety Inspection Office launches an investigation, it will notify the European Union Agency for Railways within seven days.

The Rail Safety Inspection Office will publish the conclusions of its investigation in Investigation Report, the structure of which is based on the requirements of Regulation (EU) 2020/572. If the accident or incident occurred without any violation of legislation or internal regulations of infrastructure manager and/or railway undertaking, The Rail Safety Inspection Office issues safety recommendation with the aim of preventing reoccurrence of the accident or incident. Safety recommendation is issued also if there are other findings relevant for the safety.



3 INVESTIGATIONS

3.1 Overview of investigations completed in 2022 identifying key trends

Trends of completed investigations (last column of the table) are calculated as difference to previous year (2021).

Type of accidents investigated	Number of accidents	Number of victims		Damages in € (approx.)	Trends in relation to previous year
		Deaths	Injury *		
Collisions	8	3	59	10.216.269,-	-50 %
Derailments	12	0	0	1.736.974,-	+50 %
LC-accident	5	3	15	1.830.516,-	-55 %
Fire in RS	0	0	0	0	0 %
Acc. to person	1	1	0	0	0 %
Other	4	0	0	0	0 %

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

3.2 Investigations completed and commenced in 2022

Investigations completed in 2022

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Completed (date)
4. 2. 2020	Other: SPAD of shunting operation in Praha Masarykovo nadrazi station	i	4. 2. 2022
6. 11. 2020	Trains collision with an obstacle: in Poricany station	i	29. 7. 2022
6. 11. 2020	Derailment during shunting operation in Kolin station	i	21. 1. 2022
1. 2. 2021	Train derailment: in Kladno station	i	2. 3. 2022
3. 3. 2021	Train derailment: in Namest nad Oslavou station	i	14. 4. 2022
5. 5. 2021	Trains collision with an obstacle: between Trebovice v Cechach – Ceska Trebova stations	i	24. 5. 2022
6. 5. 2021	Other: SPAD in Roztoky u Prahy station	i	1. 4. 2022
10. 5. 2021	Other: SPAD in Praha Masarykovo nadrazi station	i	10. 1. 2022
5. 6. 2021	Trains collision with an obstacle: in Trinec station	i	12. 7. 2022
14. 6. 2021	Train derailment: in Stramberk station	i	24. 2. 2022



Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Completed (date)
18. 6. 2021	Trains collision: Collision of shunting operation with standing passenger train in Cercany station	i	16. 9. 2022
15. 7. 2021	Train derailment: between Chvalkov – Vcelnicka nstations	i	22. 4. 2022
31. 7. 2021	Trains collision: in Nemcice nad Hanou station	i	21. 4. 2022
4. 8. 2021	Train derailment: in Kralupy nad Vltavou station	i	15. 12. 2022
4. 8. 2021	Trains collision: in Radonice station	i	9. 3. 2022
22. 9. 2021	Accident to person caused by RS in motion: in Bori les station	i	15. 8. 2022
25. 10. 2021	Train derailment: in Plzen hlavni nadrazi, obvod Jizni Predmesti station	i	16. 5. 2022
26. 10. 2021	Other: Unauthorised train movement other than SPAD in Lochovice station	i	7. 3. 2022
28. 10. 2021	Level-crossing accident: km 18,495 between Sedlejev - Telc	i	14. 7. 2022
31. 10. 2021	Trains collision: Collision of shunting operation with standing freight train between Cesky Tesin – Albrechtice u Ceskeho Tesina stations	i	7. 6. 2022
9. 12. 2021	Level-crossing accident: km 97,346 between Letohrad – Jablonne nad Orlici stations	i	18. 10. 2022
29. 12. 2021	Level-crossing accident: km 69,846 between Rozna – Bystrice nad Pernstejnem stations	i	13. 9. 2022
21. 2. 2022	Train derailment with consequent collision with standing rolling stock: in Letohrad station	i	13. 12. 2022
14. 3. 2022	Train derailment: in Bilina station	i	16. 12. 2022
23. 3. 2022	Train derailment: in Praha Krc station	i	9. 11. 2022
1. 4. 2022	Train derailment: in Bavorov station	i	31. 10. 2022
19. 4. 2022	Collision of shunting operation with standing rolling stocks in Bohumin Vrbice station	i	10. 11. 2022
19. 6. 2022	Train derailment: in Stupno station	i	16. 11. 2022
4. 7. 2022	Level-crossing accident: km 44,499 between Klatovy – Janovice nad Uhlovou stations	i	23. 12. 2022
24. 7. 2022	Level-crossing accident: km 56,357 between Straz u Tachova – Bor stations	i	7. 11. 2022

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 2022

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis
13. 1. 2022	Trains collision: in Prosenice station	i
29. 1. 2022	Train derailment: in Teplice v Cechach station	i
10. 2. 2022	Other: SPAD in Decin Prostedni Zleb station	i
17. 2. 2022	Trains collision with an obstacle with consequent derailment: between Zdarec u Skutce - Hlinsko v Cechach stations	i
21. 2. 2022	Train derailment with consequent collision with standing rolling stock: in Letohrad station	i
10. 3. 2022	Trains collision: in Odbocka Skaly station	i
14. 3. 2022	Train derailment: in Bilina station	i
18. 3. 2022	Other: Derailment of rolling stock during shunting operation with consequent Accident to person caused by RS in motion, collision with standing rolling stock, collision with an obstacle and other derailment in Obrnice station	i
23. 3. 2022	Train derailment: in Praha Krc station	i
1. 4. 2022	Train derailment: in Bavorov station	i
19. 4. 2022	Other: Collision of shunting operation with standing rolling stock in Bohumin Vrbice station	i
23. 4. 2022	Other: SPAD in Jihlava station	i
19. 5. 2022	Other: Injury of the employee of IM by electric current during repair of damaged contact line in Kolin station	i
7. 6. 2022	Other: Damage of contact line during ride of the train in Otrokovice station	i
19. 6. 2022	Train derailment: in Stupno station	i
27. 6. 2022	Trains collision: in Bohumin station	i
27. 6. 2022	Other: Injury of the employee of contractor by electric current during unauthorized work at the contact line in Pardubice station	i
30. 6. 2022	Trains collision with an obstacle with consequent derailment: between Karlstejn – Zadni Treban stations	i
4. 7. 2022	Level-crossing accident: km 44,499 between Klatovy – Janovice nad Uhlavou stations	i
13. 7. 2022	Train derailment: in Bohumin station	i
24. 7. 2022	Level-crossing accident: km 6,557 between Zlin Malenovice – Zlin stred stations	i
24. 7. 2022	Level-crossing accident: km 56,357 between Straz u Tachova – Bor stations	i
10. 8. 2022	Level-crossing accident: km 19,684 in Liskovec u Frydku station	i
20. 8. 2022	Trains collision: in Cesky Tesin station	i
15. 9. 2022	Other: Unauthorised train movement other than SPAD in Hostejn station	i



7. 10. 2022	Level-crossing accident: km 312,048 between Libice nad Cidlinou – Pödebrady stations	i
10. 10. 2022	Trains collision with an obstacle with consequent derailment: in Poricany station	i
11. 10. 2022	Level-crossing accident: km 3,779 between Stritez nad Becvou – Valasske Mezirici stations	i
20. 10. 2022	Level-crossing accident: km 9,925 between Brandys nad Labem – Neratovice stations	i
26. 10. 2022	Level-crossing accident: km 11,019 between Malsice – Sudomerice u Bechyne stations	i
27. 10. 2022	Other: SPAD in Zatec, obvod zapad station	i
30. 10. 2022	Other: SPAD in Vlastec station	i
9. 11. 2022	Trains collision: Collision of shunting operation with freight train in Melnik station	i
5. 12. 2022	Other: Collision of shunting operation with oncoming shunting operation in Kolin station	i
8. 12. 2022	Train derailment: in Brno Malomerice station	i
8. 12. 2022	Level-crossing accident: km 122,412 between Moravsky Pisek – Bzenec privoz stations	i

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

3.3 Research studies (or Safety Studies) commissioned and completed in 2022

Safety Studies completed in 2022

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

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

Safety Studies commenced in 2022

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 2022

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 2022 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 2018–2022)

Rail investigations completed in 2018–2022

The table groups investigations by year of their completion.

Accidents investigated		2018	2019	2020	2021	2022	TOT
Serious accidents (Art 20.1)	Train collision	0	0	0	3	1	4
	Train collision with an obstacle	1	0	0	0	0	1
	Train derailment	0	0	0	0	0	0
	Level-crossing accident	0	0	0	2	1	3
	Accident to person caused by RS in motion	-	-	-	-	-	-
	Fire in rolling stock	-	-	-	-	-	-
	Involving dangerous goods	0	0	0	0	0	0
Accidents (Art 20.2)	Train collision	2	6	5	6	4	23
	Train collision with an obstacle	5	3	1	3	3	15
	Train derailment	5	8	8	7	12	40
	Level-crossing accident	23	10	14	9	4	60
	Accident to person caused by RS in motion	1	2	6	1	1	11
	Fire in rolling stock	0	0	0	0	0	0
	Involving dangerous goods	0	0	0	0	0	0
Incidents	9	9	7	3	4	32	
TOTAL	46	38	41	34	30	189	



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 2018 – 2022

Recommendations issued		Recommendation implementation status					
		Implemented		In progress		Not to be implemented	
Year	[No.]	[No.]	[%]	[No.]	[%]	[No.]	[%]
2018	31	10	32	17	55	4	13
2019	19	12	63	6	32	1	5
2020	25	8	32	15	60	2	8
2021	21	9	43	10	48	2	9
2022	16	3	19	9	56	4	25
TOTAL	112	42	37	57	51	13	12

Accidents with safety recommendations issued in 2018 – 2022

Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
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



Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
12. 6. 2017	Other: Unauthorised train movement other than SPAD in Cesky Brod station	implemented	7. 9. 2018
8. 7. 2017	Trains collision with an obstacle: between Hulin - Rikovice and Rikovice – Prerov stations	partially implemented	12. 7. 2018
25. 7. 2017	Level-crossing accident: km 73,647 between Vlkos station – Vracov stop	not implemented	2. 2. 2018
27. 7. 2017	Train derailment: in Novosedly station	implemented	11. 9. 2018
8. 8. 2017	Other: Derailment during shunting operation in Bohumin Vrbice station	in progress	2. 7. 2018
12. 8. 2017	Trains collision with an obstacle: between Mostek – Bila Tremesna stations with consequent derailment	partially implemented	26. 10. 2018
18. 8. 2017	Level-crossing accident: km 104,994 in Przno 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 - Blatna stations	partially implemented	20. 6. 2018
31. 8. 2017	Train derailment: in Bludov station	partially implemented	22. 2. 2018
20. 9. 2017	Level-crossing accident: km 0,580 in Olomouc hlavni nadrazi station	partially implemented	21. 3. 2018
29. 9. 2017	Level-crossing accident: km 169,358 between Kryry - Vroutek stations	partially implemented	19. 2. 2018
5. 11. 2017	Other: Tram trains collision in The City of Brno – junction Hybesova - Nadrazni	implemented	26. 4. 2018
13. 11. 2017	Level-crossing accident: km 17,427 between Lipa nad Drevici station – Zelechovice nad Drevici 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 – Caslav mistni nadrazi stations	partially implemented	22. 11. 2018
16. 2. 2018	Level-crossing accident: km 263,911 in Ostrava Trebovice 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



Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
22. 5. 2018	Level-crossing accident: km 4,217 between Velvary – Kralupy nad Vltavou predmesti stations	not implemented	30. 11. 2018
23. 5. 2018	Level-crossing accident: km 6,882 in Nova Ves nad Luznici station	partially implemented	15. 10. 2018
27. 5. 2018	Other: SPAD of shunting operation in Praha Vrsovice seradovaci nadrazi station	not implemented	18. 12. 2018
4. 6. 2018	Level-crossing accident: km 10,504 between Stupno – Chrast u Plzne stations	implemented	28. 11. 2018
11. 7. 2018	Level-crossing accident: km 148,280 in Stankov station	partially implemented	28. 11. 2018
17. 3. 2017	Level-crossing accident: km 3,438 between Teplice 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	implemented	3. 4. 2019
29. 4. 2018	Train derailment: in Lhotka u Melnika station	implemented	5. 3. 2019
3. 5. 2018	Trains collision: between Kremze – Borsov nad Vltavou station with consequent derailment	implemented	12. 6. 2019
11. 6. 2018	Level-crossing accident: km 87,149 between Lochovice - Jince stations	implemented	28. 1. 2019
16. 7. 2018	Level-crossing accident: km 108,734 between Kamenny Ujezd u Ceskych Budejovic - Vcelna stations	implemented	11. 1. 2019
31. 7. 2018	Level-crossing accident: km 10,934 between Putim - Pisek stations	partially implemented	4. 4. 2019
16. 8. 2018	Level-crossing accident: km 20,786 in Cizova station	partially implemented	26. 3. 2019
7. 9. 2018	Train derailment: in Kolin station	implemented	25. 11. 2019
18. 9. 2018	Level-crossing accident: km 0,263 in Kralupy nad Vltavou predmesti station	implemented	4. 10. 2019
21. 9. 2018	Trains collision with an obstacle: between Holysov - Stankov stations	implemented	30. 9. 2019
23. 10. 2018	Other: SPAD in Studenec station	not implemented	28. 5. 2019
5. 11. 2018	Level-crossing accident: km 127,065 between Turnov - Sychrov stations	in progress	15. 5. 2019
18. 11. 2018	Train derailment: in Studenka station	in progress	30. 4. 2019



Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
21. 11. 2018	Other: Derailment during shunting operation in Strakonice station	implemented	20. 5. 2019
13. 7. 2019	Level-crossing accident: km 8,544 between Lubna - Zavidov stations	partially implemented	27. 11. 2019
6. 1. 2018	Trains collision: in Ceska Lipa station with consequent derailment	implemented	3. 9. 2020
2. 12. 2018	Level-crossing accident: km 434,211 between Velke Brezno - Usti nad Labem Strekov stations	partially implemented	21. 2. 2020
23. 2. 2019	Other: Collision of rolling stocks during shunting operation in Ceske Budejovice station	implemented	7. 4. 2020
4. 3. 2019	Trains collision: between Ronov nad Doubravou – Zleby stations	implemented	17. 4. 2020
29. 3. 2019	Train derailment: in Kostelec u Hermanova Mestce station	partially implemented	22. 4. 2020
29. 3. 2019	Other: Uncontrolled movement of rolling stock with consequent collision with an obstacle and derailment in Veseli nad Moravou station	partially implemented	9. 4. 2020
28. 6. 2019	Train derailment: in Vysoke Myto station	partially implemented	30. 1. 2020
16. 7. 2019	Level-crossing accident: km 108,978 in Horetice station	implemented	15. 2. 2020
21. 7. 2019	Other: Tram trains collision with an obstacle in The City of Praha – between Trojska – Nad Trojou stops	partially implemented	30. 7. 2020
24. 7. 2019	Trains collision with an obstacle with consequent derailment: between Nova Paka – Lazne Belohrad stations	partially implemented	8. 2. 2020
28. 7. 2019	Train derailment: between Chodova Plana – Marianske Lazne stations	partially implemented	29. 5. 2020
30. 7. 2019	Level-crossing accident: km 4,981 between branch Moravice – Hradec nad Moravici station	partially implemented	26. 2. 2020
20. 8. 2019	Other: Unauthorised movement of shunting operation other than SPAD with consequent collision with an obstacles, other rolling stock and derailment in Lovosice station	in progress	10. 8. 2020
21. 8. 2019	Level-crossing accident: km 16,382 between Ronov nad Doubravou – Tremosnice stations	in progress	13. 5. 2020
23. 8. 2019	Level-crossing accident: km 94,631 between Zakupy - Mimon stations	implemented	2. 10. 2020
25. 8. 2019	Other: Uncontrolled movement of tram train with consequent collision with an obstacle in The City of Olomouc – in U Domu stop	implemented	16. 4. 2020
6. 9. 2019	Level-crossing accident: km 169,968 in Praha Uhrineves station	in progress	28. 4. 2020
12. 9. 2019	Level-crossing accident: km 16,178 between Hnevceves - Vsestary stations	partially implemented	17. 2. 2020



Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
1. 10. 2019	Level-crossing accident: km 0.645 in Hrusovany nad Jevisovkou Sanov station	not implemented	30. 4. 2020
20. 10. 2019	Level-crossing accident: km 182,324 between Blansko - Rajec Jestrebi stations	implemented	5. 5. 2020
27. 11. 2019	Other: SPAD in Praha Bechovice station	not implemented	5. 10. 2020
17. 1. 2020	Train derailment: in Krasny Jez station	implemented	15. 6. 2020
21. 2. 2020	Level-crossing accident: km 9,040 between Mestec Kralove – Chlumeck nad Cidlinou stations	partially implemented	14. 8. 2020
27. 4. 2020	Level-crossing accident: km 1,856 between Hermanova Hut – Nyrany stations	partially implemented	14. 9. 2020
16. 5. 2020	Level-crossing accident: km 125,250 between Hnojnik – Dobra u Frydku Mistku stations	partially implemented	29. 9. 2020
22. 1. 2019	Level-crossing accident: km 5,446 between Vesec u Liberce – Jablonec nad Nisou stations	partially implemented	12. 2. 2021
1. 4. 2019	Other: Collision of the trolleybus with the tram in The City of Brno – in the area of the road crossing Masna, Krenova and Kozeluzska streets	implemented	10. 3. 2021
3. 11. 2019	Train derailment: in Praha Malesice station	implemented	17. 2. 2021
5. 11. 2019	Other: Unauthorised train movement other than SPAD between Cachnov – Skutec stations	not implemented	6. 1. 2021
9. 12. 2019	Trains collision with an obstacle: in Zamrsk station	implemented	16. 4. 2021
21. 2. 2020	Level-crossing accident: km 3,119 between Dobris – Mala Hradice stations	partially implemented	14. 1. 2021
20. 3. 2020	Other: Collision of rolling stocks during shunting operation in Kolin station	implemented	15. 3. 2021
7. 5. 2020	Unauthorised movement of shunting operation other than SPAD with consequent collision with other rolling stock and derailment between Decin Prostedni Zleb - Decin vychod stations	in progress	28. 5. 2021
12. 6. 2020	Train derailment: between Jindris – Blazejov stations	implemented	1. 2. 2021
29. 6. 2020	Other: Unauthorised train movement other than SPAD in Svetla nad Sazavou station	partially implemented	22. 2. 2021
7. 7. 2020	Trains collision: between Pernink – Nove Hamry stations	implemented	18. 1. 2021
10. 7. 2020	Trains collision: in Praha Bechovice station	partially implemented	16. 12. 2021
14. 7. 2020	Trains collision: between Uvaly – Cesky Brod stations	partially implemented	25. 11. 2021
15. 7. 2020	Level-crossing accident: km 12,688 between Velke Opatovice - Sebetov stations	not implemented	26. 3. 2021



Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
21. 7. 2020	Level-crossing accident: km 14,025 between Cermna nad Orlici - Borohradek stations	partially implemented	30. 6. 2021
22. 7. 2020	Train derailment: in Lazne Kynzvar station	implemented	14. 7. 2021
9. 9. 2020	Trains collision: in Kdyne station	partially implemented	29. 11. 2021
18. 9. 2020	Level-crossing accident: km 100,674 in Kunovice station	in progress	1. 7. 2021
19. 12. 2020	Train derailment: in Hluboka nad Vltavou Zamosti station	partially implemented	18. 10. 2021
15. 1. 2021	Other: Tram trains collision in The City of Ostrava - between Elektra – Karolina stops	implemented	24. 6. 2021
4. 3. 2021	Level-crossing accident: km 71,113 between Slatinany – Chrast u Chrudimi stations	implemented	14. 10. 2021
6. 11. 2020	Derailment during shunting operation in Kolin station	in progress	21. 1. 2022
3. 3. 2021	Train derailment: in Namest nad Oslavou station	implemented	14. 4. 2022
5. 5. 2021	Trains collision with an obstacle: between Trebovice v Cechach – Ceska Trebova stations	not implemented	24. 5. 2022
6. 5. 2021	Other: SPAD in Roztoky u Prahy station	in progress	1. 4. 2022
10. 5. 2021	Other: SPAD in Praha Masarykovo nadrazi station	in progress	10. 1. 2022
5. 6. 2021	Trains collision with an obstacle: in Trinec station	in progress	12. 7. 2022
18. 6. 2021	Trains collision: Collision of shunting operation with standing passenger train in Cercany station	in progress	16. 9. 2022
15. 7. 2021	Train derailment: between Chvalkov – Vcelnicka nstations	implemented	22. 4. 2022
31. 7. 2021	Trains collision: in Nemcice nad Hanou station	implemented	21. 4. 2022
4. 8. 2021	Train derailment: in Kralupy nad Vltavou station	partially implemented	15. 12. 2022
22. 9. 2021	Accident to person caused by RS in motion: in Bori les station	not implemented	15. 8. 2022
28. 10. 2021	Level-crossing accident: km 18,495 between Sedlejev - Telc	partially implemented	14. 7. 2022
31. 10. 2021	Trains collision: Collision of shunting operation with standing freight train between Cesky Tesin – Albrechtice u Ceskeho Tesina stations	in progress	7. 6. 2022
29. 12. 2021	Level-crossing accident: km 69,846 between Rozna – Bystrice nad Pernstejnem stations	not implemented	13. 9. 2022
1. 4. 2022	Train derailment: in Bavorov station	partially implemented	31. 10. 2022
4. 7. 2022	Level-crossing accident: km 44,499 between Klatovy – Janovice nad Uhlavou stations	not implemented	23. 12. 2022



4.2 Recommendations issued in 2022

Date of occurrence	Title of the investigation, Safety recommendation
6. 11. 2020	Derailment during shunting operation in Kolin station
<p>Addressed to The Czech Ministry of Labour and Social Affairs in cooperation with The Czech Ministry of Transport:</p> <ul style="list-style-type: none">initiate change in the provisions of the Government Decree No. 589/2006 Coll., which determines the divergent regulation of the working hours and the rest periods for the employees in transport, so that there will be determined the clear rules for work performance of the employees in transport: the rest period and the conditions of its possible shortening will be determined, the highest daily driving time of a rolling stock (not just the length of the shift, i.e. restrictions of driving overtime) will be determined, definition of overhead ride will be adjust, the maximum daily driving time will be determined, the definition of the shift and overhead ride will be modified, the obligation of frequency and length of the breaks will be determined, and when it will be allowed to take the reasonable time for rest and food, then the obligation of frequency and length of the reasonable time for rest and food would also be determined, and the obligation to register taken breaks (reasonable time for rest and food) at least for the train drivers will be determined. It is also necessary to strengthen the legal certainty of the addressees of Act No. 262/2006 Coll. and Government Decree No. 589/2006 Coll. and the exclusion of different interpretations clearly defined in the regulations (or refer to the definition in other regulations) terms „day time”, „daily driving time”, „work at night” and „night shift”.	
3. 3. 2021	Train derailment: in Namest nad Oslavou station
<p>Addressed to The Czech National Safety Authority (NSA):</p> <p>As part of its activities as a National Safety Authority, we recommend to the NSA adopt measures at railway infrastructure managers to ensure that:</p> <ul style="list-style-type: none">the refine and careful optical quality control of the switch blades surface from all sides by sight, including the underside of the switch blade heel will be executed before the point blades will be mounted into the switches to prevent the possibility of montage a surface-damaged point blade to the new or operated switch;the regular controls should be implemented in the control activities at the overtaking stations on the running track which are high work loaded and/or running at high speeds. Due to found impact of running clearance of fit of the switch blades on the slide baseplates, catching up of the web of the switch blades to the studs and catching up of the switch blade heads to the stock rail on size of dynamic loading of switch blades, these controls should be focused on clearances mentioned above by the value measurement or by implementation of the regular finding of size of dynamic loading of the blade switches using modern diagnostic methods which fix appropriate limits of these clearances, so that the limit violation of these clearances will be revealed. In the same time, the record of the measuring data will be kept, the found defects will be removed in time and the values of clearances will be constrained.	



Date of occurrence	Title of the investigation, Safety recommendation
5. 5. 2021	Trains collision with an obstacle: between Trebovice v Cechach – Ceska Trebova stations
<p>Addressed to the Czech National Safety Authority (NSA) in cooperation with Ministry of the Interior:</p> <ul style="list-style-type: none">to ensure expansion of the function of the electronic information system about open lines and circuits of operating points at the operational centers of the Fire and Rescue Service of the Czech Republic, which currently generates to operation officer the direct contacts to employees of the IM who have technical means for immediate stop of railway traffic at accidents at level crossings. <p>Addressed to the Regional Authority of the Pardubice Region:</p> <ul style="list-style-type: none">to improve the quality of the verge and place a restraint system (crash barrier) or take other appropriate measures to increase safety around the railway line on the road of 1st class No. 14 in places where there is a parallel with the railway line. <p>Addressed to the Ministry of Transport of the Czech Republic:</p> <ul style="list-style-type: none">to select places in the road network where the road is so close to the national and regional railway that in the event of a road vehicle coming off the verge there is a risk of the cargo falling or dumped into the structure gauge of the operated track. Consequently to perform the installation of restraint systems which eliminate this risk or take other appropriate measures to increase safety around the railway line at the identified places.	
6. 5. 2021	Other: SPAD in Roztoky u Prahy station
<p>Addressed to the Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none">to ensure at IMs of railway tracks national and regional to create and implement a system of practical training for train dispatchers, when it will be create crisis situations, it will be require its immediately and correct evaluation and on its basis consequent requiring an appropriate reaction to the immediate threat to the safe operation of railway transport in order to avert an occurrence or reduce their consequences;to ensure for all relevant station interlocking plants a reassessment of the hazard state analysis resulting from the interface between the device and its manipulation and subsequently consider of addittion a requirement for a graphical indication of the switch track section occupation by coloring the switch branch which was actually occupied, at least in cases when is the switch section directly behind the signal device and unauthorized movement behind this signal device is not specifically indicated by other function of the station interlocking plant.	
10. 5. 2021	Other: SPAD in Praha Masarykovo nadrazi station
<p>Addressed to the Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none">as a part of its activities as a National Safety Authority, to adopt own measure to ensure at IMs of railway tracks national and regional:<ul style="list-style-type: none">to create and implement a system of practical training for train dispatchers, when it	



Date of occurrence	Title of the investigation, Safety recommendation
will be create crisis situations requiring an appropriate reaction to the immediate threat to the safe operation of railway transport in order to avert an occurrence or reduce their consequences without unnecessary delay.	
5. 6. 2021	Trains collision with an obstacle: in Trinec station
<p>Addressed to the Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none"> • as a part of its activities by the suitable instruments we recommend the NSA ensure minimalization of events, when the IMs who operate the nation-wide railway and regional railway will not order withdrawing of the current collector by the portable signal device for electric operation. This should be done especially at construction (reconstructions, modernizations) on the railway lines, when this minimalization should be taken into account during preparation and concrete construction procedures. For this purpose, It is possible to use administrative and technical measures – e.g. temporary insertion of the section insulators onto contact wire at suitable places of the station head of the operating points, i.e. at the space between the switch of the crossover and the first switch of the next track development which is not connected to the crossover (and vice versa); • with respect to development and operating of the European train control system (hereinafter the ETCS) in the Czech republic we recommend the NSA adopt its own measures to ensure that the IMs will verificate and apply accessible options of this system in relation to elimination of occurrences caused by disobedience of the signal devices for electric operation, so primarily options for transfer of information about the signal devices for electric operation (including the portable signal devices) from the line part of the ETCS to the mobile part of the ETCS and also their consequent processing and using (e.g. notification by the text messages on display and control unit of the mobile part of the ETCS and similar measures) should be applied. <p>Addressed to the Czech Ministry of Transport in cooperation with the Czech National Safety Authority:</p> <ul style="list-style-type: none"> • we recommend the Ministry comprehensively revise and appropriately modify the text of the Decree No. 173/1995 Coll., on transport rules on the railways, as amended, in relation to the signal devices for electric operation (e.g. based on knowledge of this Final report and also on knowledge of the IMs and RUs). We also recommend using only portable signal devices for electric operation made of the blue color with the orange frame in railway transport. 	
18. 6. 2021	Trains collision: Collision of shunting operation with standing passenger train in Cercany station
<p>Addressed to the Czech Ministry of Transport (hereinafter “the Ministry”):</p> <ul style="list-style-type: none"> • we recommend that the Ministry ensure the modification of the Decree No. 173/1995 Coll. so, that the rules for driving the individual and connected (active) locomotives on the nation-wide and regional railways and on the sidings will be feasible in practice, simple and unequivocal. It is necessary to define rules for shunting the connected (active) locomotives with respect on the fact, that it is not shunting by pull nor shunting by push. Also it is necessary to define rules in case, when it is not possible to drive the locomotive 	



Date of occurrence	Title of the investigation, Safety recommendation
	<p>from the driver's footplate where it is the best view ensured (when the driver's footplate of the second locomotive for shunting in the opposite direction is practically unattainable), this should be defined including determination of the speed limit. We also recommend that the Ministry modify the definition of running at sight, at least for shunting by push, because in that case the driver of the locomotive can not drive the locomotive according to running at sight, if the running at sight means the ride which is driven by sight of the driver.</p> <p>Addressed to the National Safety Authority (hereinafter "the NSA"):</p> <ul style="list-style-type: none">• we recommend that the NSA exact such a form of the internal regulations of all railway undertakings on the nation-wide and regional railway and on the sidings, so that the instructions for driving the individual and connected (active) locomotives will be feasible in practice, simple and unequivocal. Until the modification of the Decree No. 173/1995 Coll. will be done it is necessary to determinate the rules in case, when it is not possible to drive the locomotive from the driver's footplate where it is the best view ensured (when the driver's footplate of the second locomotive for shunting in the opposite direction is practically unattainable), this should be defined including determination of the speed limit.
15. 7. 2021	Train derailment: between Chvalkov – Vcelnicka nstations
	<p>Addressed to the Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none">• as part of its activities as a national safety authority accept measure which ensure at the IM Jindřichohradecké místní dráhy, a. s.:<ul style="list-style-type: none">◦ update, replenishment, mutual harmonization and interconnection all internal regulations and technological procedures in the area of railway track, removal defect and make subsequent checking activity.
31. 7. 2021	Trains collision: in Nemcice nad Hanou station
	<p>Addressed to the Czech National Safety Authority (the NSA):</p> <ul style="list-style-type: none">• as part of its activities (not only using the execution of the state supervision in matters regarding rail systems) over the activities of the railway undertaking Retrack Czech, s. r. o., and other railway undertakings we recommend that the NSA continue in verification whether the procedures for ensuring compliance with the established safety management system ensure its observance and taking into account the type, area and extent of traffic and whether the procedures also effectively minimize the risk of overspeeding.
4. 8. 2021	Train derailment: in Kralupy nad Vltavou station
	<p>Addressed to the Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none">• as part of its activities as a National Safety Authority, we recommend that the NSA adopt measures to ensure that the IM Správa železnic, s. o., and other IMs:<ul style="list-style-type: none">◦ will create uniform, clear and easily understood technological procedures for executing controls, measurement and switches point blade takeover after their adjustment – founding of new starting point of the point blade and unify these



Date of occurrence	Title of the investigation, Safety recommendation
procedures into a single binding document.	
22. 9. 2021	Accident to person caused by RS in motion: in Bori les station
Addressed to the Czech National Safety Authority (NSA): <ul style="list-style-type: none">• as a part of its activities as a national safety authority, to take own measures that will ensure that the railway undertaking České dráhy, a. s.:<ul style="list-style-type: none">◦ determination of the checks and its parameters at maintenance of the outside door of service compartment of diesel railcars series 854, determination of limiting value for the telescopic latches of the mechanism of these doors and register of these checks until the end of the service life of these diesel railcars;◦ determination of the check method of the door by train crew at the beginning of shift at the diesel railcars series 854 and ensuring demonstrable familiarization of train crews with these procedures.• as a part of its activities as a national safety authority, to take own measures that will ensure more stringent checks of the diesel railcars with a similar design solution of the outside door of service compartment and their registration with railway undertaking in the Czech Republic who operate them. The rolling stocks are a historic diesel railcars, especially series 820, 850 and 851 of the manufacturer Vagónka Tatra Studénka (including successor organizations).• delivery of the above-mentioned point No. 2 of the safety recommendation to all owners and operators of the diesel railcars series 820, 850 and 851 manufactured by Vagónka Tatra Studénka (including successor organizations) outside the Czech Republic through the Network of National Safety Authorities at the European Union Agency for Railways.	
28. 10. 2021	Level-crossing accident: km 18,495 between Sedlejev - Telc
Addressed to the Czech National Safety Authority (NSA): <ul style="list-style-type: none">• to take measures to immediately increase the perception of vertical traffic signs by road users with the current way of interlocking of level crossings P6433 and P6434 by addition the existing traffic signs A32a „Warning cross” for single-track level crossing and P6 „Stop, give a priority!” by yellow-green retroreflective foundation and appropriately add horizontal traffic signs.	
31. 10. 2021	Trains collision: Collision of shunting operation with standing freight train between Cesky Tesin – Albrechtice u Ceskeho Tesina stations
Addressed to the Czech National Safety Authority (NSA): <ul style="list-style-type: none">• ensure that train drivers will be notified of the season when reduction of adhesion rate necessary for starting and stop of the rolling stocks (worsened adhesion condition) occurs very often due to the fallen leaves in combination with atmospheric humidity and the train drivers should also be notified of the right method of braking (technology of braking device and sanding equipment). This should be done at railway undertakings always before the season mentioned above starts. This notification will be carry out until	

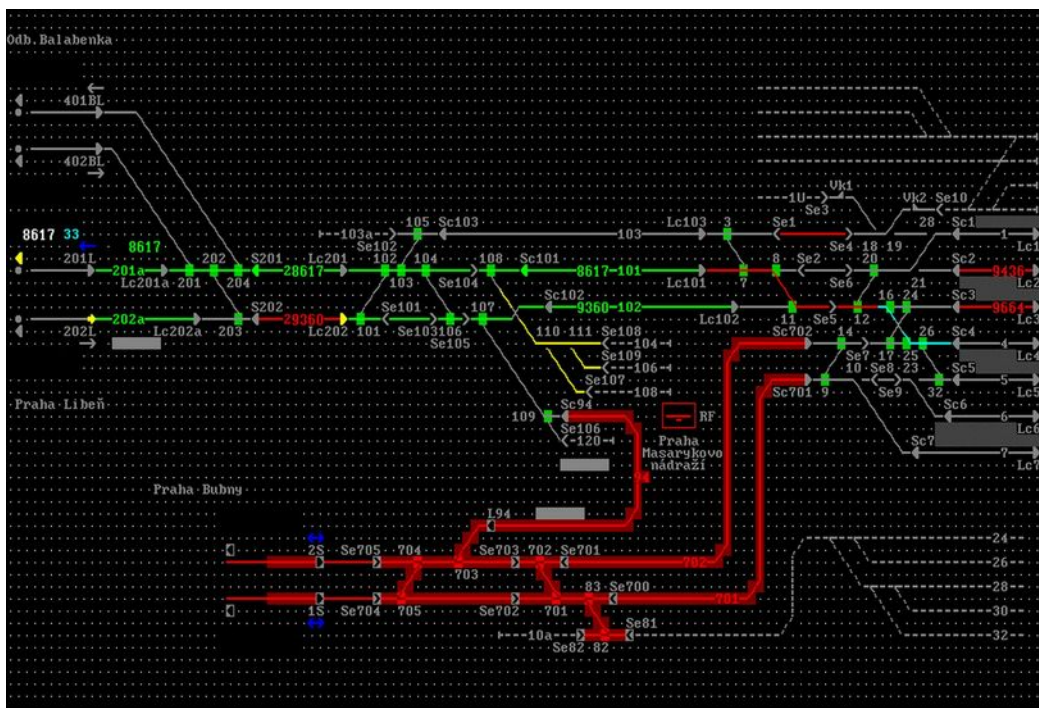


Date of occurrence	Title of the investigation, Safety recommendation
	<p>realization training to acquire and maintain the right way of driving of train drivers on the rolling stock simulator – see next indent;</p> <ul style="list-style-type: none">• until realization below stated recommendation it should be ensured at railway undertakings, which using rolling stock simulator for improvement of the train driver's training to acquire and maintain the right way of driving, that these trainings should be supplemented by simulation of driving on downgrade for the stuck train under the conditions when adhesion rate necessary for stop of the rolling stocks is reduced;• in cooperation with the Ministry of transport, we recommend that the NSA create the legal framework and system which will determine the scope and content of knowledge, skills and procedure necessary to prove professional competence for driving the rolling stocks on the national and regional lines and this system should be extend by verification of train driver's practical ability to also solve the situations which can rarely happen, including braking when adhesion rate necessary for starting and stop of the rolling stocks is reduced, this should be proved on the rolling stock simulator adequately.
29. 12. 2021	Level-crossing accident: km 69,846 between Rozna – Bystrice nad Pernštejnem stations
	<p>Addressed to the Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none">• to take own measure to ensure addition of the level crossing No. P7054 which is secure by flashing light level crossing warning system to a level crossing system equipped with barriers which with regard to point of view of optical and manual barrier will reduce probability of the driver's entrance at the level crossing when he does not respond to light signalization in the warning state.
1. 4. 2022	Train derailment: in Bavorov station
	<p>Addressed to the Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none">• as a part of its activities as a national safety authority, to take own measure to ensure installation of construct adjustment for holder of bolt of spring switch mechanism which prevent to locked up of connecting lock (without the switch being in resetting mode) at all IMs who operates switches which are equipped by mechanism of self-returning switch by producer AŽD Praha s. r. o.
4. 7. 2022	Level-crossing accident: km 44,499 between Klatovy – Janovice nad Uhlovou stations
	<p>Addressed to the Czech National Safety Authority (NSA):</p> <ul style="list-style-type: none">• to take own measure to ensure addition of the level crossing No. P847 which is secure by flashing light level crossing warning system to a level crossing system equipped with barriers which with regard to point of view of optical and manual barrier will reduce probability of the driver's entrance at the level crossing when he does not respond to light signalization in the warning state.

ACCIDENT SUMMARY

Grade:	incident.
Date and time:	4 th February 2020, 22:31 (21:31 GMT).
Occurrence type:	unauthorized movement.
Description:	unauthorized movement of the shunting operation behind the signal device Se2 and consequent ride into the train route for the regional passenger train No. 8617.
Type of train:	the shunting operation; the regional passenger train No. 8617.
Location:	Praha Masarykovo nádraží station, the shunting signal device Se2, km 409,428.
Parties:	Správa železnic, státní organizace (IM); České dráhy, a. s. (RU of the regional passenger train No. 8617 and the shunting operation).
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Direct cause:	<ul style="list-style-type: none">• failure to respect the signal „Shunting forbidden” of the shunting signal device Se2 at Praha Masarykovo nádraží station by the train driver of the shunting operation.
Contributory factor:	none.
Underlying cause:	<ul style="list-style-type: none">• failure to comply of technological procedures of the railway undertaking and the infrastructure manager for shunting operation by the train driver of the shunting operation, who did not follow signals of infrastructure manager.
Root cause:	none.
Recommendation:	not issued.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time:	6 th November 2020, 7:55 (6:55 GMT).
Occurrence type:	collision with an obstacle.
Description:	collision of the regional passenger train No. 9318 with a lorry.
Type of train:	the regional passenger train No. 9318.
Location:	Poříčany station, station head to Český Brod station, continuation of station track No. 0, km 371,968.
Parties:	Správa železnic, státní organizace (IM); České dráhy, a. s. (RU of the regional passenger train No. 9318); driver of the lorry.
Consequences:	0 fatality, 0 injury; total damage CZK 18 200 000,-
Causal factor:	<ul style="list-style-type: none">• an unauthorized entrance of the lorry to structure gauge of station track where the train was moving.
Contributing factor:	<ul style="list-style-type: none">• insufficient awareness of the lorry driver about organization works within track possession.
Systemic factor:	none.
Recommendation:	not issued.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

- Date and time: 6th November 2020, 13:55 (12:55 GMT).
- Occurrence type: a train derailment.
- Description: the derailment of the locomotive of the shunting operation.
- Type of train: the shunting operation.
- Location: Kolín station, the switch No. 106, km 347,329.
- Parties: Správa železnic, státní organizace (the IM);
RM LINES, a. s. (the RU of the shunting operation).
- Consequences: 0 fatality, 0 injury;
total damage CZK 21 796 250,-
- Causal factor:
- exceeding of the safety limit of track gauge and change of gauge in the part of the switch No. 106 as a result of insufficient holding of fastenings on the rotten wooden sleepers due to failure to adopt adequate measures to ensure safe railway operation and railway transport operating.
- Contributing factor: none.
- Systemic factor: none.
- Recommendation:
- Addressed to The Czech Ministry of Labour and Social Affairs in cooperation with The Czech Ministry of Transport:
- initiate change in the provisions of the Government Decree No. 589/2006 Coll., which determines the divergent regulation of the working hours and the rest periods for the employees in transport, so that there will be determined the clear rules for work performance of the employees in transport: the rest period and the conditions of its possible shortening will be determined, the highest daily driving time of a rolling stock (not just the length of the shift, i.e. restrictions of driving overtime) will be determined, definition of overhead ride will be adjust, the maximum daily driving time will be determined, the definition of the shift and overhead ride will be modified, the obligation of frequency and length of the breaks will be determined, and when it will be allowed to take the reasonable time for rest and food, then the obligation of frequency and length of the reasonable time for rest and food would also be determined, and the obligation to register taken breaks (reasonable time for rest and food) at least for the train drivers will be determined. It is also necessary to strengthen the legal certainty of the addressees of Act No. 262/2006 Coll. and Government Decree No. 589/2006 Coll. and the exclusion of different interpretations clearly defined in the regulations (or refer to the definition in other regulations) terms „day time”, „daily driving time”, „work at night” and „night shift”.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time:	1 st February 2021, 23:04 (22:04 GMT).
Occurrence type:	train derailment.
Description:	derailment of the regional passenger train No. 9803.
Type of train:	the regional passenger train No. 9803.
Location:	Kladno station, the switch No. 32, km 27,740.
Parties:	Správa železnic, státní organizace (IM); České dráhy, a. s. (RU of the regional passenger train No. 9803).
Consequences:	0 fatality, 0 injury; total damage CZK 58 376,-
Causal factor:	<ul style="list-style-type: none">• movement of the regional passenger train No. 9803 over the point blade fracture of the switch No. 32 due to break the bearing cross-section by the mechanism of transcrystalline fissionable fracture spread from the foreheads of partial fatigue cracks in the flange and in the web of the point blade.
Contributing factors:	<ul style="list-style-type: none">• age of the point blade (45 years) and its long-term cyclical stress by intensive railway traffic;• very low value of notched toughness of the rail material increasing the probability of break by fragile fracture especially at low temperatures;• failure to detect fatigue crack by the controls performed in accordance with the procedures of the IM.
Systemic factor:	none.
Recommendation:	not issued.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time: 3rd March 2021, 7:18 (6:18 GMT).
Occurrence type: train derailment.
Description: fracture of the point blade of the switch No. 12, derailment, spontaneous re-railing of the regional passenger train No. 4817 and its consequent unsecured movement on another track.
Type of train: the regional passenger train No. 4817.
Location: Náměšť nad Oslavou station, switch No. 12, km 30,045; place of the train derailment was at km 30,044.
Parties: Správa železnic, státní organizace (IM);
České dráhy, a. s. (RU of the regional passenger train No. 4817).
Consequences: 0 fatality, 0 injury;
total damage CZK 120 976,-

Causal factor:

- fracture of the left point blade of the switch No. 12 due to fatigue crack caused by surface damage of the point blade and movement of the regional passenger train No. 4817 over this switch, which was due to fracture of the point blade in technical condition, which did not ensure safe movement of the train in the intended direction.

Contributing factors:

- technological indiscipline - insert and installation the point blade with surface damage on the underside of the heel to the switch No. 12;
- failure to detect fatigue cracks by the checks performed in accordance with the procedures of the IM;
- long-term cyclical stress of the point blade by intensive railway traffic.

Systemic factor: none.

Recommendation:

Addressed to The Czech National Safety Authority (NSA):

As part of its activities as a National Safety Authority, we recommend to the NSA adopt measures at railway infrastructure managers to ensure that:

1. the refine and careful optical quality control of the switch blades surface from all sides by sight, including the underside of the switch blade heel will be executed before the point blades will be mounted into the switches to prevent the possibility of montage a surface-damaged point blade to the new or operated switch;
2. the regular controls should be implemented in the control activities at the overtaking stations on the running track which are high work loaded and/or running at high speeds. Due to found impact of running clearance of fit of the switch blades on the slide baseplates, catching up of the web of the switch blades to the studs and catching up of the switch blade heads to the stock rail on size of dynamic loading of switch blades, these controls should be focused on clearances mentioned above by the value measurement or by implementation of the regular finding of size of dynamic loading of the blade switches using modern diagnostic methods which fix appropriate limits of these clearances, so that the limit violation of these clearances will be revealed. In the same time, the record of the measuring data will be kept, the found defects will be removed in time and the values of clearances will be constrained.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time: 5th May 2021, 14:19 (12:19 GMT).
Occurrence type: train collision with an obstacle.
Description: collision of the long distance passenger train No. 1254 with an obstacle – dumped stones from the lorry after a traffic accident.
Type of train: the long distance passenger train No. 1254.
Location: open line between Třebovice v Čechách and Česká Třebová stations, track line No. 2, km 2,946.
Parties: Správa železnic, státní organizace (IM);
Leo Express s. r. o. (RU of the long distance passenger train No. 1254);
driver of the lorry.
Consequences: 0 fatality, 0 injury;
total damage CZK 10 834 657,-

Causal factor:

- formation of an obstacle (dumped cargo) into structure gauge of the operated track from an overturned lorry after a traffic accident on the road;
- failure to stop rail traffic between Třebovice v Čechách and Česká Třebová stations.

Contributing factor:

- none.

Systemic factor:

- absence of reliable and correct system of fast and effective electronic orientation at the operational centers of the Integrated Rescue System for generating target contacts to employees of the IM who can stop traffic at the event of a threat of railway traffic safety, besides the level crossings.

Recommendations:

Addressed to the Czech National Safety Authority (NSA) in cooperation with Ministry of the Interior:

- to ensure expansion of the function of the electronic information system about open lines and circuits of operating points at the operational centers of the Fire and Rescue Service of the Czech Republic, which currently generates to operation officer the direct contacts to employees of the IM who have technical means for immediate stop of railway traffic at accidents at level crossings.

Addressed to the Regional Authority of the Pardubice Region:

- to improve the quality of the verge and place a restraint system (crash barrier) or take other appropriate measures to increase safety around the railway line on the road of 1st class No. 14 in places where there is a parallel with the railway line.

Addressed to the Ministry of Transport of the Czech Republic:

- to select places in the road network where the road is so close to the national and regional railway that in the event of a road vehicle coming off the verge there is a risk of the cargo falling or dumped into the structure gauge of the operated track. Consequently to perform the installation of restraint systems which eliminate this risk or take other appropriate measures to increase safety around the railway line at the identified places.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

- Date and time: 6th May 2021, 12:35 (10:35 GMT).
- Occurrence type: unauthorized movement.
- Description: unauthorized movement of the freight train No. 47342 behind the signal device L1 and entry to the train route for the regional passenger train No. 9629.
- Type of train: the freight train No. 47342;
the regional passenger train No. 9629.
- Location: Roztoky u Prahy station, the signal device L1, km 421,938.
- Parties: Správa železnic, státní organizace (IM);
PKP CARGO INTERNATIONAL a. s. (RU of the freight train No. 47342);
České dráhy, a. s. (RU of the regional passenger train No. 9629).
- Consequences: 0 fatality, 0 injury;
total damage CZK 0,-
- Causal factor:
- failure to respect the signal „Stop” of the departure signal device L1 at Roztoky u Prahy station by the train driver of the freight train No. 47342 due to his inattention and concentration on driving at a voltage-free section instead of observation of signal of the departure signal device.
- Contributing factor: none.
- Systemic factor: none.
- Recommendation:
- Addressed to the Czech National Safety Authority (NSA):
- to ensure at IMs of railway tracks national and regional to create and implement a system of practical training for train dispatchers, when it will be create crisis situations, it will be require its immediately and correct evaluation and on its basis consequent requiring an appropriate reaction to the immediate threat to the safe operation of railway transport in order to avert an occurrence or reduce their consequences;
 - to ensure for all relevant station interlocking plants a reassessment of the hazard state analysis resulting from the interface between the device and its manipulation and subsequently consider of addittion a requirement for a graphical indication of the switch track section occupation by coloring the switch branch which was actually occupied, at least in cases when is the switch section directly behind the signal device and unauthorized movement behind this signal device is not specifically indicated by other function of the station interlocking plant.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

- Date and time: 10th May 2021, 6:12 (4:12 GMT).
- Occurrence type: unauthorized movement.
- Description: unauthorized movement of the regional passenger train No. 9608 behind the main signal device and entry to the train route for the regional passenger train No. 6903.
- Type of train: the regional passenger train No. 9608;
the regional passenger train No. 6903.
- Location: Praha Masarykovo nádraží station, the main (route) signal device Sc7, km 410,378.
- Parties: Správa železnic, státní organizace (IM);
České dráhy, a. s. (RU of the regional passenger trains No. 9608 and No. 6903).
- Consequences: 0 fatality, 0 injury;
total damage CZK 0,-
- Causal factor:
- failure to respect the signal „Stop” of the main (route) signal device Sc7 at Praha Masarykovo nádraží station by the train driver of the regional passenger train No. 9608 due to unconscious mistake of the train driver which manifested in the unauthorized movement of this train without:
 - it was dispatched the train No. 9608 from Praha Masarykovo nádraží station;
 - the train driver visually convinced whether the main (route) signal device Sc7 at Praha Masarykovo nádraží station allows movement of the train.
- Contributing factor: none.
- Systemic factor: none.
- Recommendation:
- Addressed to the Czech National Safety Authority (NSA):
- as a part of its activities as a National Safety Authority, to adopt own measure to ensure at IMs of railway tracks national and regional:
 - to create and implement a system of practical training for train dispatchers, when it will be create crisis situations requiring an appropriate reaction to the immediate threat to the safe operation of railway transport in order to avert an occurrence or reduce their consequences without unnecessary delay.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time: 5th June 2021, 21:18 (19:18 GMT).
Occurrence type: the collision with the specified technical equipment.
Description: the collision of the locomotive train No. 53484 with the specified technical equipment placed on the contact wire.
Type of train: the locomotive train No. 53484.
Location: Třinec station, km 312,820.
Parties: Správa železnic, státní organizace (the IM);
LOKORAIL, a. s. (the RU of the locomotive train No. 53484).
Consequences: 0 fatality, 0 injury;
total damage CZK 593 900,-
Causal factor:

- untimely raising of the current collector of the locomotive train No. 53484 at the place where the ride with the withdrawn current collector was ordered, and even if the train driver was not called on to do so.

Contributing factor: none.
Systemic factor: none.
Recommendations:

Addressed to the Czech National Safety Authority (NSA):

- as a part of its activities by the suitable instruments we recommend the NSA ensure minimalization of events, when the IMs who operate the nation-wide railway and regional railway will not order withdrawing of the current collector by the portable signal device for electric operation. This should be done especially at construction (reconstructions, modernizations) on the railway lines, when this minimalization should be taken into account during preparation and concrete construction procedures. For this purpose, It is possible to use administrative and technical measures – e.g. temporary insertion of the section insulators onto contact wire at suitable places of the station head of the operating points, i.e. at the space between the switch of the crossover and the first switch of the next track development which is not connected to the crossover (and vice versa);
- with respect to development and operating of the European train control system (hereinafter the ETCS) in the Czech republic we recommend the NSA adopt its own measures to ensure that the IMs will verify and apply accessible options of this system in relation to elimination of occurrences caused by disobedience of the signal devices for electric operation, so primarily options for transfer of information about the signal devices for electric operation (including the portable signal devices) from the line part of the ETCS to the mobile part of the ETCS and also their consequent processing and using (e.g. notification by the text messages on display and control unit of the mobile part of the ETCS and similar measures) should be applied.

Addressed to the Czech Ministry of Transport in cooperation with the Czech National Safety Authority:

- we recommend the Ministry comprehensively revise and appropriately modify the text of the Decree No. 173/1995 Coll., on transport rules on the railways, as amended, in relation to the signal devices for electric operation (e.g. based on knowledge of this Final report and also on knowledge of the IMs and RUs). We also recommend using only portable signal devices for electric operation made of the blue color with the orange frame in railway transport.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time: 14th June 2021, 22:39 (20:39 GMT).

Occurrence type: train derailment.

Description: unsecured movement of the regional passenger train No. 23121 on an incorrect train route and consequent derailment.

Type of train: the regional passenger train No. 23121.

Location: Štramberk station, main (entrance) signal device S, km 20,346.
Place of beginning of the unsecured movement was at switch No. 18, km 19,775; place of the derailment was at switch No. 18, km 19,771.

Parties: Správa železnic, státní organizace (IM);
České dráhy, a. s. (RU of the regional passenger train No. 23121).

Consequences: 0 fatality, 0 injury;
total damage CZK 32 681,-

Causal factor:

- permission of entry for the regional passenger train No. 23121 to Štramberk station on an incorrect train route, when the switch No. 18 was not in the correct position for the given train route due to failure to perform the prescribed transport operations and work procedures consisting in failure to test the correct adjustment of the switch No. 18 to the position for movement of the train No. 23121.

Contributing factor: none.

Systemic factor: none.

Recommendation: not issued.

Annex – Summaries of investigations completed in 2022

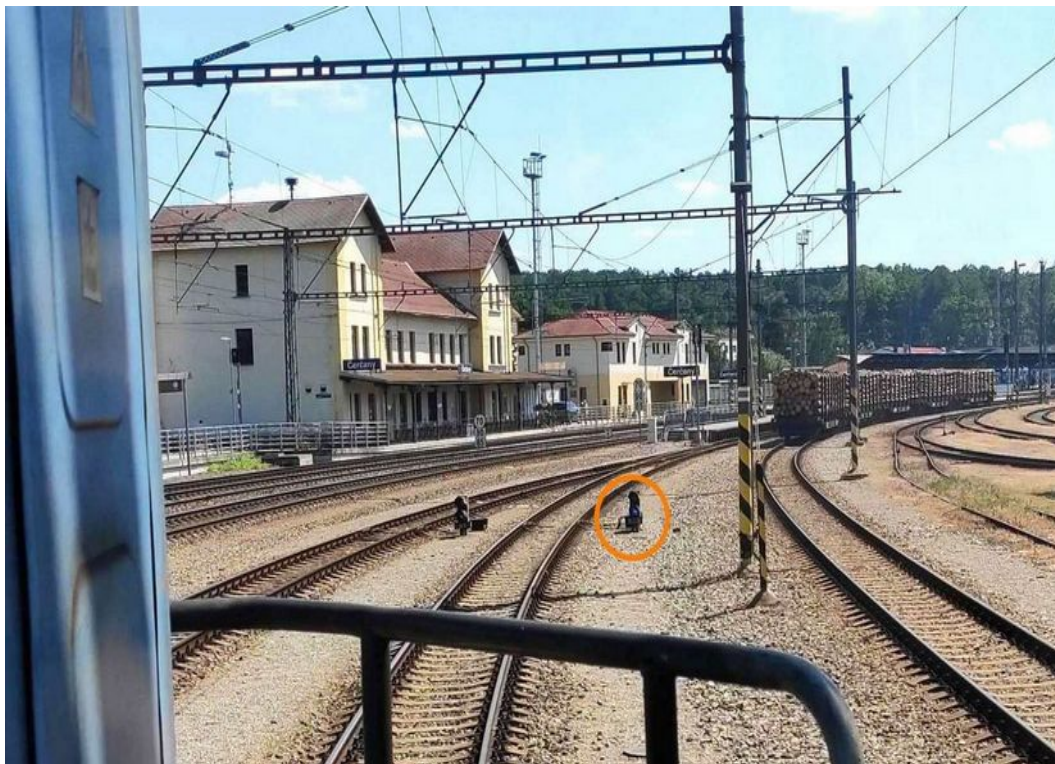


ACCIDENT SUMMARY

- Date and time: 18th June 2021, 10:10 (8:10 GMT).
- Occurrence type: a train collision.
- Description: an unauthorized movement of the shunting operation behind the signal device Se12 and its consequent collision with the standing regional passenger train No. 9010.
- Type of train: the shunting operation;
the regional passenger train No. 9010.
- Location: Čerčany station, the shunt signal device Se12, km 143,882 (a place of the unauthorized movement), the station track No. 5c, km 143,756 (a place of the train collision).
- Parties: Správa železnic, státní organizace (the IM);
ČD Cargo, a. s. (the RU of the shunting operation);
České dráhy, a. s. (the RU of the regional passenger train No. 9010).
- Consequences: 1 injury;
total damage CZK 3 513 980,-
- Causal factor:
- head's of the shunting gang error (he did not respect the signal "Shunting forbidden" of the signal device Se12).
- Contributing factor:
- none.
- Causal factor of continuation of the accident (train collision):
- nonadaptation of immediate speed of shunting to the conditions of running at sight when riding through the curve with limited view caused by the rolling stocks standing on the neighbour track.
- Systemic factor:
- none.
- Recommendations:
- Addressed to the Czech Ministry of Transport (hereinafter the "Ministry"):
- we recommend that the Ministry ensure the modification of the Decree No. 173/1995 Coll. so, that the rules for driving the individual and connected (active) locomotives on the nation-wide and regional railways and on the sidings will be feasible in practice, simple and unequivocal. It is necessary to define rules for shunting the connected (active) locomotives with respect on the fact, that it is not shunting by pull nor shunting by push. Also it is necessary to define rules in case, when it is not possible to drive the locomotive from the driver's footplate where it is the best view ensured (when the driver's footplate of the second locomotive for shunting in the opposite direction is practically unattainable), this should be defined including determination of the speed limit. We also recommend that the Ministry modify the definition of running at sight, at least for shunting by push, because in that case the driver of the locomotive can not drive the locomotive according to running at sight, if the running at sight means the ride which is driven by sight of the driver.
- Addressed to the National Safety Authority (hereinafter "the NSA"):
- we recommend that the NSA exact such a form of the internal regulations of all railway undertakings on the nation-wide and regional railway and on the sidings, so that the instructions for driving the individual and connected (active) locomotives will be feasible in practice, simple and unequivocal. Until the modification of the Decree No. 173/1995 Coll. will be done it is

Annex – Summaries of investigations completed in 2022

necessary to determinate the rules in case, when it is not possible to drive the locomotive from the driver's footplate where it is the best view ensured (when the driver's footplate of the second locomotive for shunting in the opposite direction is practically unattainable), this should be defined including determination of the speed limit.



ACCIDENT SUMMARY

Date and time: 15th July 2021, 14:19 (12:19 GMT).
Occurrence type: train derailment.
Description: derailment of diesel railcar of the regional passenger train No. 21209.
Type of train: the regional passenger train No. 21209.
Location: open line between Chvátkov and Včelnička operating control points, km 27,051.
Parties: Jindřichohradecké místní dráhy, a. s. (the IM and the RU of the regional passenger train No. 21209).
Consequences: 0 fatality, 0 injury;
total damage CZK 218 978,-

Causal factor:

- reduce the load of left side of the front bogie of diesel railcar due to fracture of coil springs of secondary suspension of the back bogie the right in the direction of the train movement and consequent climbing of left wheel of the front bogie on the top of rail in place in an unsatisfactory technical condition with exceeded marginal operating tolerances in collapse of the track.

Contributing factor:

- undetermined specific appropriate period and deferment of eliminate found exceeded marginal operating tolerances of the geometric position of the track.

Systemic factor:

- guideway operating and guided transport operating according to internal regulations of IM which were in contradiction with technical conditions guideway operability designated by obligatory construction-technical parameters, which led to the wrong evaluation of geometric parameters of the track and then not to accepted timely and appropriate measure to ensure safety guideway operating and guided transport operating.

Recommendation:

Addressed to the Czech National Safety Authority (NSA):

- as part of its activities as a national safety authority accept measure which ensure at the IM Jindřichohradecké místní dráhy, a. s.:
 - update, replenishment, mutual harmonization and interconnection all internal regulations and technological procedures in the area of railway track, removal defect and make subsequent checking activity.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

- Date and time: 31st July 2021, 13:27 (11:27 GMT).
- Occurrence type: a train collision.
- Description: the collision of the locomotive train No. 52489 with the oncoming regional passenger train No. 3821.
- Type of train: the locomotive train No. 52489;
the regional passenger train No. 3821.
- Location: Němčice nad Hanou station, the main (departure) signal device S1, km 66,849;
a place of the train collision was at the switch No. 1, km 66,876.
- Parties: Správa železnic, státní organizace (the IM);
Retrack Czech, s. r. o. (the RU of the locomotive train No. 52489);
České dráhy, a. s. (the RU of the regional passenger train No. 3821).
- Consequences: 0 fatality, 2 injuries;
total damage CZK 24 311 262,-*)
*) The amount of damage is not final at the date of the report drafting.
- Causal factor:
- failure to stop the locomotive train No. 52489 in front of the main (departure) signal device S1 with the signal „Stop” at Němčice nad Hanou station in connection with failure to act according to the signal „Warning“ of the previous main (entrance) signal device S by the train driver.
- Contributing factor: none.
- Systemic factor: none.
- Recommendation:
- Addressed to the Czech National Safety Authority (the NSA):
- as part of its activities (not only using the execution of the state supervision in matters regarding rail systems) over the activities of the railway undertaking Retrack Czech, s. r. o., and other railway undertakings we recommend that the NSA continue in verification whether the procedures for ensuring compliance with the established safety management system ensure its observance and taking into account the type, area and extent of traffic and whether the procedures also effectively minimize the risk of overspeeding.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time: 4th August 2021, 4:59 (2:59 GMT).

Occurrence type: the train derailment.

Description: derailment of 3 rolling stocks of the freight train No. 62310.

Type of train: the freight train No. 62310.

Location: Kralupy nad Vltavou station, the switch No. 101, km 435,660.

Parties: Správa železnic, státní organizace (IM);
ČD Cargo, a. s. (RU of the freight train No. 62310).

Consequences: 0 fatality, 0 injury;
total damage CZK 2 215 647,-

Causal factors:

- movement of the freight train No. 62310 over the switch No. 101, which right point blade was in inconvenient technical condition and it enabled to climb up of the wheel of unequally distributed cargo of rolling stock to top of rail of the point blade;
- loss of vertical wheel effort of right wheel of the first axle of front bogie of the rolling stock CZ - ČDC 31 54 5968 948-7 due to unequally distributed cargo which was transport on loading surface of rolling stock.

Contributing factors:

- improperly performed repair of the point blade at repair works by the contractor;
- failure to detect the unsatisfactory condition of the point blade of the switch No. 101 by IM and failure to adopt safety measures.

Systemic factor:

- absence of a clear and simple technological procedure, which would summarized a clear procedure and requirements for the parameters of measurement and the point blade takeover after founding of new starting point of the point blade.

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 IM Správa železnic, s. o., and other IMs:
 - will create uniform, clear and easily understood technological procedures for executing controls, measurement and switches point blade takeover after their adjustment – founding of new starting point of the point blade and unify these procedures into a single binding document.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time:	4 th August 2021, 8:06 (6:06 GMT).
Occurrence type:	a train collision.
Description:	an unauthorized movement of the long distance passenger train No. 351 and its consequent collision with the oncoming regional passenger train No. 7406.
Type of train:	the long distance passenger train No. 351; the regional passenger train No. 7406.
Location:	Radonice overtaking station, the main departure signal device S1, the station track No. 1, km 161,638; a place of the train collision was at the switch No. 1, km 161,551.
Parties:	Správa železnic, státní organizace (the IM); České dráhy, a. s. (the RU of the long distance passenger train No. 351 and the regional passenger train No. 7406).
Consequences:	3 fatalities, 43 injuries; *) total damage CZK 178 108 332,- **) *) The final number of the injured persons is not specified at the date of the report drafting because the extent of the foreign passengers injuries is unknown. **) The amount of damage is not final at the date of the report drafting.
Causal factor:	<ul style="list-style-type: none">• failure to respect the signal „Stop" of the main (departure) signal device S1 at Radonice overtaking station by the train driver of the long distance passenger train No. 351.
Contributing factor:	none.
Systemic factor:	none.
Recommendation:	not issued.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

- Date and time: 22nd September 2021, 10:11 (8:11 GMT).
- Occurrence type: an accident to a person caused by a rolling stock in motion.
- Description: a falling out of the conductor from the outside door of service compartment of diesel railcar of the regional passenger train No. 11451.
- Type of train: the regional passenger train No. 11451.
- Location: Boří les station, km 85,285.
- Parties: Správa železnic, státní organizace (IM);
České dráhy, a. s. (RU of the regional passenger train No. 11451).
- Consequences: 1 fatality, 0 injury;
total damage CZK 0,-
- Causal factor:
- unexpected opening of the outside door of service compartment of diesel railcar during movement of the regional passenger train No. 11451.
- Contributing factor:
- insufficient check and maintenance of the outside door of service compartment of diesel railcar resulting its unsuitable technical condition, which was manifested by close of the door in such a way that the difference between properly closed and unclosed door was not visible to the human eye.
- Systemic factor:
- checks and maintenance procedures to ensure adequate technical condition of diesel railcars series 854 did not determine the limit parameters of the lock and custodial mechanism of the outside door of service compartment of diesel railcar.
- Recommendations:
- Addressed to the Czech National Safety Authority (NSA):
- as a part of its activities as a national safety authority, to take own measures that will ensure that the railway undertaking České dráhy, a. s.:
 - determination of the checks and its parameters at maintenance of the outside door of service compartment of diesel railcars series 854, determination of limiting value for the telescopic latches of the mechanism of these doors and register of these checks until the end of the service life of these diesel railcars;
 - determination of the check method of the door by train crew at the beginning of shift at the diesel railcars series 854 and ensuring demonstrable familiarization of train crews with these procedures.
 - as a part of its activities as a national safety authority, to take own measures that will ensure more stringent checks of the diesel railcars with a similar design solution of the outside door of service compartment and their registration with railway undertaking in the Czech Republic who operate them. The rolling stocks are a historic diesel railcars, especially series 820, 850 and 851 of the manufacturer Vagónka Tatra Studénka (including successor organizations).
 - delivery of the above-mentioned point No. 2 of the safety recommendation to all owners and operators of the diesel railcars series 820, 850 and 851 manufactured by Vagónka Tatra Studénka (including successor organizations) outside the Czech Republic through the Network of National Safety Authorities at the European Union Agency for Railways.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time:	25 th October 2021, 9:39 (8:39 GMT).
Occurrence type:	train derailment.
Description:	unauthorized movement of the shunting operation behind the signal device Se508 with consequent derailment.
Type of train:	the shunting operation.
Location:	Plzeň hlavní nádraží, district Jižní Předměstí station, signal device Se508, km 350,133; place of derailment was at switch No. 508, km 350,120.
Parties:	Správa železnic, státní organizace (IM); České dráhy, a. s. (RU of the shunting operation).
Consequences:	0 fatality, 0 injury; total damage CZK 11 167 500,-
Causal factor:	<ul style="list-style-type: none">• failure to respect the signal „Shunting forbidden” of the shunting signal device Se508 at Plzeň hlavní nádraží, district Jižní Předměstí station by the train driver of the shunting operation.
Contributing factors:	<ul style="list-style-type: none">• unauthorized set in motion of the shunting operation without permission to shunting;• unauthorized lighting of the signal „Shunting allowed” on the signal device Sc511 without previous grant of permission to shunting.
Systemic factor:	none.
Recommendation:	not issued.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time:	26 th October 2021, 16:13 (15:13 GMT).
Occurrence type:	uncontrolled movement.
Description:	uncontrolled movement of the diesel railcar from/for regional passenger train No. 27716/27723.
Type of train:	the diesel railcar.
Location:	Lochovice station, station track No. 3, km 93,843 – beginning of uncontrolled movement of the diesel railcar. Place of its final stop – open line between Lochovice station and Hostomice pod Brdy operating control point, km 25,100.
Parties:	Správa železnic, státní organizace (IM); České dráhy, a. s. (RU of the diesel railcar from/for the regional passenger train No. 27716/27723);
Consequences:	0 fatality, 0 injury; total damage CZK 0,-
Causal factor:	<ul style="list-style-type: none">• unsecure of the diesel railcar against unwanted movement by a train driver before its abandonment.
Contributing factor:	none.
Systemic factor:	none.
Recommendation:	not issued.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

- Date and time: 28th October 2021, 7:23 (6:23 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the regional passenger train No. 1901 with a lorry at the level crossing.
- Type of train: the regional passenger train No. 1901.
- Location: open line between Sedlejev and Telč stations, the level crossing No. P6433, km 18,495.
- Parties: Správa železnic, státní organizace (IM);
České dráhy, a. s. (RU of the regional passenger train No. 1901);
driver of the lorry (level crossing user).
- Consequences: 1 fatality; 0 injury;
total damage CZK 820 000,-
- Causal factor:
- an unauthorized entrance of the lorry at the level crossing No. P6433 at the time when the train No. 1901 was arriving, caused by behavior of the lorry driver, he did not react carefully enough and he did not make sure whether he could safely pass the level crossing.
- Contributing factor: none.
- Systemic factor: none.
- Recommendation:
- Addressed to the Czech National Safety Authority (NSA):
- to take measures to immediately increase the perception of vertical traffic signs by road users with the current way of interlocking of the level crossings P6433 and P6434 by addition the existing traffic signs A32a „Warning cross” for single-track level crossing and P6 „Stop, give a priority!” by yellow-green retroreflective foundation and appropriately add horizontal traffic signs.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

- Date and time: 31st October 2021, 2:35 (1:35 GMT).
- Occurrence type: trains collision.
- Description: collision of the locomotive moving as shunting between operating control points for the stuck freight train No. 62054 with this train.
- Type of train: shunting between operating control points;
the freight train No. 62054.
- Location: open line between Český Těšín and Albrechtice u Českého Těšína stations, line track No. 2, km 6,758.
- Parties: Správa železnic, státní organizace (IM);
ČD Cargo, a. s. (RU of the shunting between operating control points and the freight train No. 62054).
- Consequences: 0 fatality, 0 injury;
total damage CZK 513 310,-
- Causal factor:
- failure to stop of the shunting between operating control points No. 858011 in front of the standing locomotive of the stuck freight train No. 62054 due to failure to use the sanding equipment for prevention of wheel slide skid of wheels during braking at place where it was reduced coefficient of adhesion rate and for deflect of collision by train driver of the shunting between operation control points.
- Contributing factor:
- reduction of the coefficient of adhesion friction which is necessary for stop of the shunting between operating control points on the track line No. 2 between Český Těšín and Albrechtice u Českého Těšína stations; this situation was caused by lodgment of rutted vegetation (leaves) residues on the tops of the heads of both rail strings by the interaction of atmospheric humidity at the time of the accident.
- Systemic factor: none.
- Recommendation:
- Addressed to the Czech National Safety Authority (NSA):
- ensure that train drivers will be notified of the season when reduction of adhesion rate necessary for starting and stop of the rolling stocks (worsened adhesion condition) occurs very often due to the fallen leaves in combination with atmospheric humidity and the train drivers should also be notified of the right method of braking (technology of braking device and sanding equipment). This should be done at railway undertakings always before the season mentioned above starts. This notification will be carry out until realization training to acquire and maintain the right way of driving of train drivers on the rolling stock simulator – see next indent;
 - until realization below stated recommendation it should be ensured at railway undertakings, which using rolling stock simulator for improvement of the train driver's training to acquire and maintain the right way of driving, that these trainings should be supplemented by simulation of driving on downgrade for the stuck train under the conditions when adhesion rate necessary for stop of the rolling stocks is reduced;
 - in cooperation with the Ministry of transport, we recommend that the NSA create the legal framework and system which will determine the scope and content of knowledge, skills and procedure necessary to prove professional competence for driving the rolling stocks on the national and regional lines and this system should be extend by verification of train driver's practical ability to also solve the situations

Annex – Summaries of investigations completed in 2022

which can rarely happen, including braking when adhesion rate necessary for starting and stop of the rolling stocks is reduced, this should be proved on the rolling stock simulator adequately.



ACCIDENT SUMMARY

Date and time:	9 th December 2021, 7:56 (6:56 GMT).
Occurrence type:	level crossing accident.
Description:	collision of the regional passenger train No. 7153 with the lorry and consequent derailment.
Type of train:	the regional passenger train No. 7153.
Location:	open line between Letohrad and Jablonné nad Orlicí stations, the level crossing No. P4073, km 97,346.
Parties:	Správa železnic, státní organizace (IM); Leo Express Tenders s. r. o. (RU of the regional passenger train No. 7153); driver of the lorry (level crossing user).
Consequences:	1 injury; total damage CZK 13 493 296,-
Causal factor:	<ul style="list-style-type: none">• the lorry got stuck at loading gauge at the level crossing No. P4073 and it was not remove before the regional passenger train No. 7153 was arriving, caused by unexpected technical failure of the lorry.
Contributing factor:	none.
Systemic factor:	none.
Recommendation:	not issued.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

- Date and time: 29th December 2021, 5:45 (4:45 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the regional passenger train No. 14901 with the lorry with consequent derailment.
- Type of train: the regional passenger train No. 14901.
- Location: open line between Rožná and Bystřice nad Pernštejnem stations, the level crossing No. P7054, km 69,846.
- Parties: Správa železnic, státní organizace (IM);
České dráhy, a. s. (RU of the regional passenger train No. 14901);
driver of the lorry (level crossing user).
- Consequences: 3 injuries;
total damage CZK 20 169 037,-
- Causal factor:
- an unauthorized entrance of the lorry at the level crossing No. P7054 at the time when the train No. 14901 was arriving, caused by behavior of the driver of the lorry, who did not respect the light and acoustic warning of the level crossing safety equipment and did not make sure whether he could safely pass the level crossing.
- Contributing factor:
- none.
- Systemic factor:
- none.
- Recommendation:
- Addressed to the Czech National Safety Authority (NSA):
- to take own measure to ensure addition of the level crossing No. P7054 which is secure by flashing light level crossing warning system to a level crossing system equipped with barriers which with regard to point of view of optical and manual barrier will reduce probability of the driver's entrance at the level crossing when he does not respond to light signalization in the warning state.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time:	21 st February 2022, 13:32 (11:32 GMT).
Occurrence type:	train derailment.
Description:	unauthorized movement of the regional passenger train No. 1834 behind the main (departure) signal device L4, derailment over the derailer Vk7 and collision with detached rolling stock at station track No. 4c.
Type of train:	the regional passenger train No. 1834.
Location:	Letohrad station, the main (departure) signal device L4, km 89,856.
Parties:	Správa železnic, státní organizace (IM); České dráhy, a. s. (RU of the regional passenger train No. 1834).
Consequences:	0 fatality, 0 injury; total damage CZK 242 272,-
Causal factor:	<ul style="list-style-type: none">• failure to respect the signal „Stop” of the main (departure) signal device L4 by the train driver of the regional passenger train No. 1834 due to unconscious mistake of the train driver which manifested in the unauthorized movement of this train without dispatched the train No. 1834 from Letohrad station and the train driver visually did not convince whether the main (departure) signal device L4 at Letohrad station allows movement of the train.
Contributing factor:	none.
Systemic factor:	none.
Recommendation:	not issued.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

- Date and time: 14th March 2022, 8:24 (7:24 GMT).
- Occurrence type: train derailment.
- Description: derailment of the sixth rolling stock from 14 rolling stocks of the freight train No. 53030.
- Type of train: the freight train No. 53030.
- Location: Bílina station, the switch No. 35, km 35,002.
- Parties: Správa železnic, státní organizace (IM);
ČD Cargo, a. s. (RU of the freight train No. 53030).
- Consequences: 0 fatality, 0 injury;
total damage CZK 4 616 540,-
- Causal factor:
- a ride of the freight train No. 53030 onto the switch No. 35 where the right point blade was in an unsatisfactory technical condition and enabled to climb of the rolling stock wheel on the top of rail.
- Contributing factor:
- failure to detect of unsatisfactory condition of the point blade of the switch No. 35 by the infrastructure manager and failure to take own measure to ensure safety.
- Systemic factor:
- none.
- Recommendation:
- not issued.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time:	23 rd March 2022, 15:15 (13:15 GMT).
Occurrence type:	train derailment.
Description:	unsecured movement of the regional passenger train No. 9013 with consequent derailment.
Type of train:	the regional passenger train No. 9013.
Location:	Praha-Krč station, the switch No. 32, km 5,550; place of the unsecured movement – starting point of the switch No. 32, km 5,542.
Parties:	Správa železnic, státní organizace (IM); České dráhy, a. s. (RU of the regional passenger train No. 9013).
Consequences:	0 fatality, 0 injury; total damage CZK 2 530 142,-
Causal factor:	<ul style="list-style-type: none">• an unauthorized operation of elements of the station interlocking plant of Praha-Krč station resulting in adjustment of the switch No. 32 when it was occupied by the moving rolling stocks of the train No. 9013, it was caused by an unintentional mistake (error) of the professionally qualified person operating the equipment, who did not use dependings of operated station interlocking plant of Praha-Krč station to complete the train route by automatic operation of the station interlocking plant and she did not allow entry of the train No. 9013 by normal operation of the main (entrance) signal device S.
Contributing factor:	none.
Systemic factor:	none.
Recommendation:	not issued.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

- Date and time: 1st April 2022, 5:56 (3:56 GMT).
- Occurrence type: train derailment.
- Description: unsecured movement of the regional passenger train No. 18000 with consequent derailment.
- Type of train: the regional passenger train No. 18000.
- Location: Bavorov operating control point, spring switch No. 2sv, km 12,342.
- Parties: Správa železnic, státní organizace (IM);
GW Train Regio a. s. (RU of the regional passenger train No. 18000).
- Consequences: 0 fatality, 0 injury;
total damage CZK 91 496,-
- Causal factor:
- the train driver of the regional passenger train No. 18000 did not respect the instruction by IM of the signal device Sv2 before entering on the spring switch No. 2sv at Bavorov operating control point, the regional passenger train No. 18000 did not stop before spring switch No. 2sv and the train driver did not check correct transfer of this switch.
- Contributing factor:
- none.
- Systemic factor:
- none.
- Recommendation:
- Addressed to the Czech National Safety Authority (NSA):
- as a part of its activities as a national safety authority, to take own measure to ensure installation of construct adjustment for holder of bolt of spring switch mechanism which prevent to locked up of connecting lock (without the switch being in resetting mode) at all IMs who operates switches which are equipped by mechanism of self-returning switch by producer AŽD Praha s. r. o.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time:	19 th April 2022, 3:57 (1:57 GMT).
Occurrence type:	train collision.
Description:	collision of the shunting operation with the standing locomotive.
Type of train:	the shunting operation.
Location:	Bohumín station, Bohumín-Vrbice district, the station track No. 624, km 272,197.
Parties:	Správa železnic, státní organizace (IM); Rail Cargo Carrier – Czech Republic, s. r. o. (RU of the shunting operation).
Consequences:	0 fatality, 0 injury; total damage CZK 19 331 295,-
Causal factor:	<ul style="list-style-type: none">• the shunting route was made from station track No. 604a of the Bohumín station, Bohumín-Vrbice district to station track No. 624, ie. to a place which the train driver of the shunting operation did not determine (as shunting manager) when arranging the shunting with the track dispatcher 3G of the Central dispatching workplace Přerov, which was caused:<ul style="list-style-type: none">◦ by his unconscious error (mistake) when he operated the station interlocking plant;◦ it was failure check correct position of the shunting route, i.e. whether the shunting route was perform to the location specified at arranging the shunting.
Contributing factor:	<ul style="list-style-type: none">• none.
Systemic factor:	<ul style="list-style-type: none">• none.
Recommendation:	<ul style="list-style-type: none">• not issued.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time: 19th June 2022, 9:48 (7:48 GMT).
Occurrence type: train derailment.
Description: unsecured movement of the regional passenger train No. 17806 with consequent derailment.
Type of train: the regional passenger train No. 17806.
Location: Stupno operating control point, switch No. 3sv, km 19,437.
Parties: Správa železnic, státní organizace (IM);
České dráhy, a. s. (RU of the regional passenger train No. 17806).
Consequences: 0 fatality, 0 injury;
total damage CZK 333 500,-
Causal factor:

- the train driver of the regional passenger train No. 17806 did not respect instruction by IM of the signal device Sv3 before entering on the spring switch No. 3sv at Stupno operating control point, the regional passenger train No. 17806 did not stop in front of spring switch No. 3sv and the train driver did not check correct transfer of this switch.

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

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

- Date and time: 4th July 2022, 15:11 (13:11 GMT).
- Occurrence type: level crossing accident.
- Description: collision of the regional passenger train No. 17555 with the set of vehicles (tractor and trailer) with consequent derailment.
- Type of train: the regional passenger train No. 17555.
- Location: open line between Klatovy and Janovice nad Úhlavou stations, the level crossing No. P847, km 44,499.
- Parties: Správa železnic, státní organizace (IM);
České dráhy, a. s. (RU of the regional passenger train No. 17555);
driver of the set of vehicles (level crossing user).
- Consequences: 1 fatality, 9 injuries;
total damage CZK 9 030 732,-
- Causal factor:
- an unauthorized entrance of the set of vehicles at the level crossing No. P847 at the time when the regional passenger train No. 17555 was arriving, caused by behavior of the driver of the set of vehicles, who did not respect the light and acoustic warning of the level crossing safety equipment and did not make sure whether he could safely pass the level crossing.
- Contributing factor: none.
- Systemic factor: none.
- Recommendation:
- Addressed to the Czech National Safety Authority (NSA):
- to take own measure to ensure addition of the level crossing No. P847 which is secure by flashing light level crossing warning system to a level crossing system equipped with barriers which with regard to point of view of optical and manual barrier will reduce probability of the driver's entrance at the level crossing when he does not respond to light signalization in the warning state.

Annex – Summaries of investigations completed in 2022



ACCIDENT SUMMARY

Date and time: 24th July 2022, 15:51 (13:51 GMT).
Occurrence type: level crossing accident.
Description: collision of the regional passenger train No. 7214 with a car with consequent derailment of driving trailer by 2 bogies.
Type of train: the regional passenger train No. 7214.
Location: the level crossing No. P751 between Stráž u Tachova operating control point and Bor station, km 56,357.
Parties: Správa železnic, státní organizace (IM);
České dráhy, a. s. (RU of the regional passenger train No. 7214);
driver of the car (level crossing user).
Consequences: 1 fatality, 2 injuries;
total damage CZK 2 249 846,-
Causal factor:

- an unauthorized entrance of the car at the level crossing No. P751 at the time when the train No. 7214 was driving through the level crossing, caused by behavior of the car driver, who did not respect the light and acoustic warning of the level crossing safety equipment and did not make sure whether he could safely pass the level crossing.

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

Annex – Summaries of investigations completed in 2022

