



STATE COMMISSION ON RAILWAY ACCIDENT INVESTIGATION

MINISTRY OF THE INTERIOR AND ADMINISTRATION

ANNUAL REPORT 2023

ON THE ACTIVITIES
OF THE STATE COMMISSION
ON RAILWAY ACCIDENT INVESTIGATION

Approved by:

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1. Introduction

1.1 The legal framework for and tasks of the Commission

The permanent and independent State Commission on Railway Accident Investigation, hereinafter referred to as "the Commission" or "PKBWK", has been investigating serious accidents, accidents and incidents since 17 April 2007.

The establishment of the Commission was a result of the implementation into national law of the position set out in Article 21 of Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004 on safety on the Community's railways repealed by Directive (EU) 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway safety, -OJ L 138, 26.5.2016, p. 102, hereinafter referred to as "the Directive". In accordance with Article 22 of the current Directive, the Republic of Poland has ensured that the investigation of accidents and incidents is conducted by a permanent body which is independent in its functioning, organisation and decision-making from any safety authority, railway market regulator, railway undertakings, infrastructure managers and from any other parties whose interests could conflict with the operation of the investigating body. The function of the National Investigating Body defined by the Directive is, in accordance with national law, performed by the "Commission". The Commission is fully independent in its organisation and legal framework from the entities and the European Union Railway Agency referred to in Article 22 of the Directive. At the same time, this said article empowers the National Investigating Body to supervise the investigation in the event of a serious accident, accident or incident.

The Commission acts on the basis of the provisions of Chapter 5a of the Act of 28 March 2003 on rail transport (consolidated text: (Journal of Laws of 2023, item 1786, as amended), hereinafter referred to as "the Rail Transport Act" or "the Act", and is headed and represented externally by its Chairman in accordance with Article 28a(6a) of the Act.

Beginning on 1 November 2019, the budget of the Commission has been provided by the Minister in charge of home affairs, and support services have been provided to the Commission by the office that supports the said Minister (in accordance with Article 4 of the Act of 30 August 2019 *amending the Rail Transport Act* - Journal of Laws, item 1979).

Effective on the date of entry into force of the aforementioned *Amending Act*, the minister in charge of home affairs or the office that supports their ministry shall be a party to all contracts and agreements concerning the functioning of the State Commission on Railway Accident Investigation concluded by the minister in charge of transport or the office that supports their ministry, respectively.

As provided by Article 28e(1) of the Act, the primary task of the Commission is to conduct investigations following any serious accident in rail transport (occurring on railway lines with a track gauge of not less than 300 mm, in railway networks functionally separate from the railway system, and at railway sidings that are not private) which has an obvious (negative) impact on railway safety regulation or management of railway safety.

As provided by Article 28e(2) of the Act, the Commission may also investigate accidents or incidents which under slightly modified conditions would be serious accidents leading to technical failures of the structural subsystems or interoperability constituents of the trans-European rail system. As provided by Article 28e(3a) of the Act, the decision to undertake aforementioned investigations is taken by the Chairman of the Commission within maximum 2 months from the date on which they received the notification.

The Commission may investigate accidents or incidents other than those set out above, provided that they occurred under circumstances that justify undertaking such an investigation. In such a case, the decision to undertake an investigation under Article 28e(2a) of the Rail Transport Act is made by the Chairman of the Commission, with no time limit specified.

Another premise for deciding to investigate accidents and incidents is that they occurred in repeated situations occasioned by similar causes. Any decision to establish an investigation into an accident or incident is preceded by considering:

- the seriousness of the accident or incident;
- whether the accident or incident forms a series of accidents or incidents relating to the system as a whole;
- the impact of the accident or incident on railway safety at Community level;
- motions by managers, railway undertakings, the minister in charge of home affairs and the minister in charge of transport, the President of the Rail Transport Office, hereinafter referred to as "the President of UTK", or European Union Member States.

Within one week of the decision to establish an investigation, the Commission shall inform the European Union Railway Agency thereof, stating the date, time and place of the occurrence, as well as its type and consequences as regards fatalities, injuries and material damage.

As part of its activities, the Commission conducts investigations to establish the circumstances of occurrences and contributing factors, and to identify preventive measures to improve safety in rail transport. The Commission draws up investigation reports with recommendations concerning safety improvements and the prevention of serious accidents, accidents or accidents, adopting a resolution to that effect. Investigations

conducted by the Commission do not determine guilt or liability. As provided by Article 28a(3a) of the Act, members of the Commission are authorised to conduct investigations into serious accidents, accidents and incidents.

Members of the Commission hold service cards that authorising them to perform the activities referred to in Article 28h(2) of the Rail Transport Act. The model of the service card is set out in the Regulation of the Minister of the Interior and Administration of 23 October 2020 on the model of the service card of a member of the State Commission on Railway Accident Investigation (Journal of Laws, item 1894).

The service card is issued to a member of the Commission by the minister in charge of home affairs.

Where the investigation is established by the Commission into an accident or incident, the railway commission delegates the conduct of the investigation to the Commission. PKBWK draws up investigation reports in accordance with Commission Implementing Regulation (EU) 2020/572 of 24 April 2020 *on the reporting structure to be followed for railway accident and incident investigation reports*, hereinafter referred to as the "*Commission Implementing Regulation (EU)*", which established the reporting structure for investigations into accidents and incidents referred to in Article 20(1) and (2) of Directive (EU) 2016/798.

Commission Implementing Regulation (EU) 2020/572 of 24 April 2020 (Official Journal of the European Union No. 132 of 27 April 2020) entered into force on 14 May 2020 and is binding in its entirety and directly applicable in all Member States.

This Report uses the terms "rail-road crossing" and "level crossing" which mean any point where a road intersects a railway line in one plane, other than a passage. The term "rail-road crossing" is derived from the Regulation of the Minister of Infrastructure and Development of 20 October 2015 *on the technical conditions to be met by the intersections of railway lines and railway sidings with roads, and location thereof* (Journal of Laws of 2015, item 1744, as amended), while the term "level crossing" is defined and used in the Act on road traffic.

1.2 Organisational structure of the Commission

As at 31 December 2023, the Commission consisted of 10 permanent members including the Chairman, two Vice-Chairmen and the Commission Secretary.

The State Commission on Railway Accident Investigation is headquartered in the building of the Ministry of the Interior and Administration at al. Jana Chrystiana Szucha 2/4, 00-582 Warszawa.

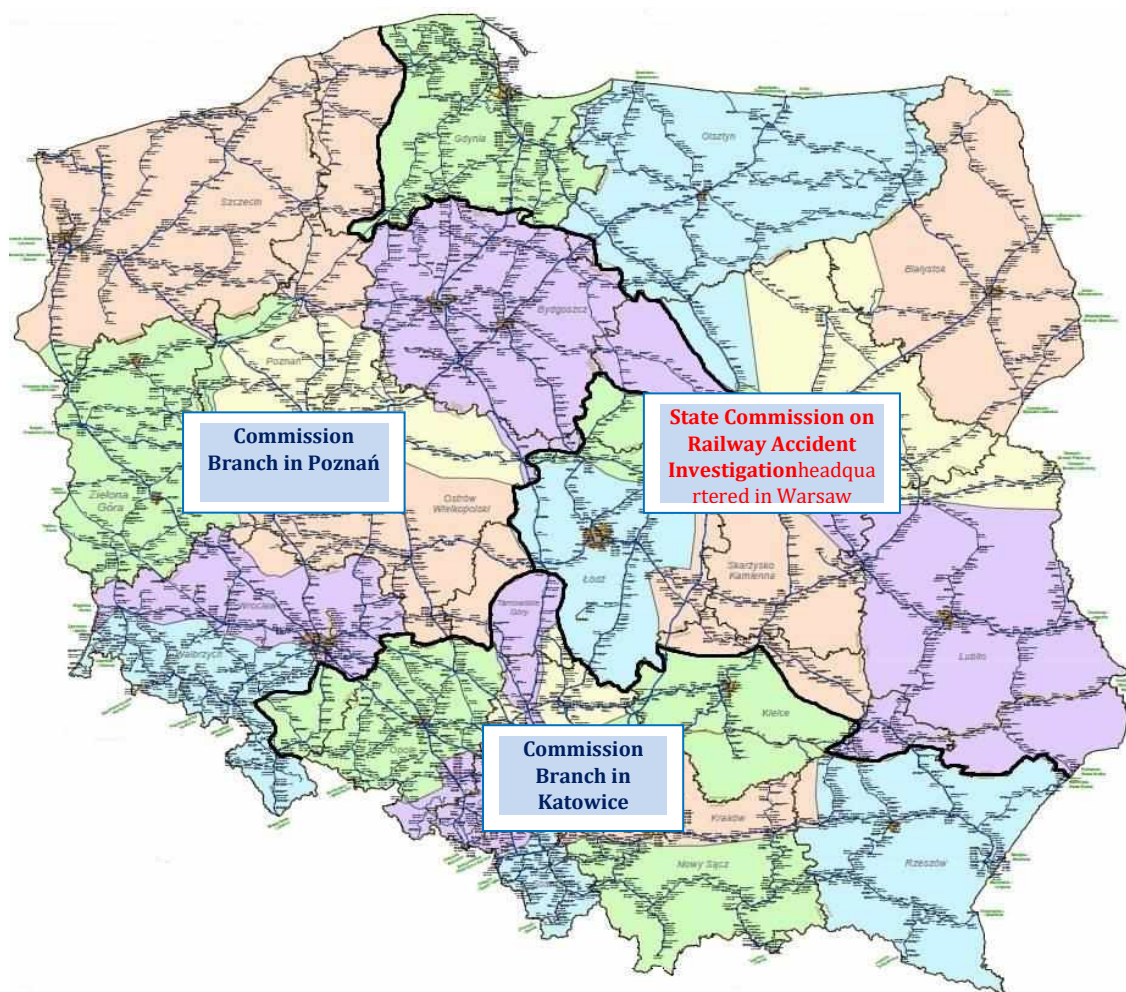
Pursuant to the provisions of Article 28d(4) of the Act of 28 March 2003 on rail transport (Journal of Laws of 2019, items 710, 730, 1214, 1979 and 2020), the Minister of the Interior and Administration issued Order No. 3 of the Minister of the Interior and Administration of 31 January 2020 *on the rules of procedure of the State Commission on Railway Accident Investigation* (hereinafter referred to as the Commission Rules), published in the Official Journal of the Minister of the Interior and Administration under item No. 2.

Annex 1 to Order No. 3 of the Minister of the Interior and Administration of 31 January 2020. (item 2) contains *the rules of procedure of the State Commission on Railway Accident Investigation (hereinafter referred to as the "Commission Rules")*, which has been in force since 31 January 2020 and sets out the directions of the Commission's activities, its organisational structure and the obligations of the Office of the Minister of the Interior and Administration as regards the support for the Commission.

In accordance with the provisions of §5(1) of the Commission Rules, the Chairman coordinates execution of the Commission's tasks, ensures the proper organisation of the Commission's work and smooth operation, and represents the Commission externally.

The organisational structure of PKBWK is set out in Annex 2 to the aforementioned Order:

1. State Commission on Railway Accident Investigation headquartered in Warsaw (5 FTEs – permanent members):
 - a) Chairman,
 - b) Vice-Chairman for Research,
 - c) Vice-Chairman for Technical Matters,
 - d) Commission Secretary,
 - e) permanent member.
2. Commission Branch in Katowice (4 FTEs):
 - a) permanent member coordinating the work of the branch,
 - b) permanent members (3 FTEs).
3. Commission Branch in Poznań (3 FTEs):
 - a) permanent member coordinating the work of the branch,
 - b) permanent members (2 FTEs).



Staffing as of 31 December 2023:

- Commission headquarters in Warsaw – 4 permanent members (1 vacancy) and 1 Commission service worker*),
- Commission Branch in Katowice – 3 permanent members (1 vacancy),
- Commission Branch in Poznań – 3 permanent members.

*) support services are provided to the Commission by the office of the minister in charge of home affairs.

2. Activities and forms of operation of the Commission and supervision by the Chairman in 2023

In 2023, the Commission carried out operations relating to rail transport occurrences, including, but not limited to, the following activities:

1. An analysis of an immediate notification of an occurrence made by the entities mentioned in Article 28g of the Act.

The purpose of the preliminary analysis was to establish the impact of the occurrence (circumstances, causes, number of victims, estimated losses and other important data

influencing the occurrence). The said activities were carried out by members of the Commission, under the supervision of the Chairman of the Commission.

Preliminary information on the occurrence was provided to the Chairman of the Commission.

2. Decisions to send members of the Commission to the site of the occurrence to conduct an inspection was made either by the Chairman of the Commission or the designated Vice-Chairman.
3. A decision that a member(s) of the Commission should take direct part in an occurrence site inspection in the presence of the head of the railway commission was made mainly in the case of occurrences where it was suspected that the contributing factors included a poorly functioning railway safety management system that required analysis and possible corrective actions, or there were other reasons that necessitated the investigation in accordance with Article 28e(2a) and (3) of the Rail Transport Act. The inspecting members drafted memos concerning the occurrence site inspection, submitting recommendations to the Chairman of PKBWK.
4. The collected and provided preliminary information on the nature of the occurrence and its consequences including fatalities, serious injuries and material damage enabled the Chairman of the Commission to evaluate whether it was necessary to issue a decision to establish an investigation into the occurrence concerned.
5. Investigations into serious accidents, accidents or incidents were conducted by Commission Investigation Teams appointed by the Chairman of the Commission.
6. The investigation into an occurrence by a Commission Investigation Team appointed by the Chairman of the Commission *is* initiated by appointing the investigator in charge of the Investigation Team followed by determining the composition of the Investigation Team from among the permanent and ad hoc members of the Commission in consultation with the investigator-in-charge. The Commission Investigation Team then proceeded to establish the circumstances and contributing factors of the incident and draw up the documentation describing the investigation process that was required for the Commission to adopt a resolution closing the investigation into the serious accident, accident or incident concerned. The investigator-in-charge assigned and coordinated the activities carried out by the members of the Investigation Team, and was responsible for the correctness of the activities. The tasks and detailed scope of activities are laid down in the Commission Rules. The above activities were carried out under the supervision of the Chairman of the Commission.

The Commission issued recommendations to improve safety and prevent serious accidents, accidents or incidents in the course of investigations.

The scope of the plan of investigation conducted by the Investigation Team depended in each case on the conclusions which the Commission expected to draw in order to improve safety.

In 2023, reports were drafted by the Commission Investigation Teams on the basis of the provisions of the *Commission Implementing Regulation (EU)*.

The final version of a draft Report was adopted under a resolution of the Commission as a result of an analysis and after either accepting or rejecting the comments made by the entities mentioned in Article 28k(2) of the Act.

In 2023, the Chairman of the Commission Mr. Tadeusz Ryś decided to take over and assign to Commission Investigation Teams the investigations into the following occurrences:

- 1) a
railway accident that occurred on 3 November 2022 at 18:45 hrs at the passenger stop Krzcięcice, track no. 2, at km 244.636 of railway line no. 8 Warszawa Zachodnia - Kraków Główny;
- 2) a
railway accident that occurred on 12 December 2022 at 02:35 hrs on the Kozięgłowy - Poznań Piątkowo route, track no. 2, km 11.788 of railway line no. 395 Zieliniec - Kiekrz, Category C level crossing;
- 3) a railway accident that occurred on 19 January 2023 at 18:37 hrs on the Szczecin Podjuchy - Szczecin Port Centralny SPA route, km 349.520 of track no. 1, railway line no. 273 Wrocław Główny - Szczecin Główny;
- 4) a
railway accident that occurred on 7 February 2023 at 02:00 hrs at Wrocław Brochów station, km 1.701 of track no. 1N of railway line no. 349 Św. Katarzyna - Wrocław Kuźniki;
- 5) a
railway accident that occurred on 20 February 2023 at 18:11 hrs on the Chałupki - Krzyżanowice route, track no. 2, Cat. B level crossing at km 47.973 of railway line no. 151 Kędzierzyn-Koźle - Chałupki;
- 6) a railway accident that occurred on 19 May 2023 at 09:51 hrs on the Komorów - Podkowa Leśna Główna route, track no. 51, Cat. D level crossing, km 18.805 of railway line no. 47 Warszawa Śródmieście WKD - Grodzisk Mazowiecki Radońska;
- 7) a railway incident that occurred on 8 May 2023 at 07:26 hrs on the Góra Włodowska - Zawiercie route, track no. 1, km 212.400 of railway line no. 4 Grodzisk Mazowiecki - Zawiercie;
- 8) a railway accident that occurred on 12 April 2022 at 09:22 hrs at Poznań Główny station at turnout no. 140 built in track no. 51, at km -0.181 of railway line no. 351 Poznań Główny - Szczecin Główny;
- 9) a railway accident that occurred on 24 August 2023 at 12:05 hrs at Skierniewice station, at turnout no. 13, km 64.282 of railway line no. 1 Warszawa Zachodnia - Katowice;
- 10) a railway accident that occurred on 5 October 2023 at 07:00 hrs at Gdynia Główna station, track no. 5, turnout no. 45, km 21.522 of railway line no. 202 Gdańsk Główny - Stargard.

The status of the Commission's investigations as of 31 December 2023 was as follows:

- the investigations into the occurrences listed in items 1, 2 and 5 were completed by the Commission Investigation Teams, with "Reports" of the investigations approved under Commission resolutions and published,
- the investigations into the occurrences listed in items 3, 4 and 6 ÷ 10, initiated in 2023, are under development Investigation Teams appointed by the Commission.

Furthermore, in 2023, the Commission completed the investigations into the following occurrences:

- 1) a railway incident that occurred on 16 October 2019 at 13:51 hrs at Leszczyń station, km 31.738 of railway line No. 140 Katowice Ligota – Nędza; the decision to take over the investigation was made on 1 October 2020;
- 2) a railway accident that occurred on 20 June 2022 at 12:55 hrs at the junction post Regalica, railway line no. 251 Poznań Główny POD - Szczecin Główny, km 204.079; the decision to take over the investigation was made on 29 June 2022.

Detailed information concerning the investigations into these occurrences is provided in further sections of the Report.

7. The Commission kept the entities mentioned in Article 28k(2) of the Act informed of the status and progress of the investigations into the occurrences, enabling them to submit their opinions and make comments on the investigation concerned.
8. The Commission cooperated with competent entities investigating serious accidents, accidents or incidents in other European Union Member States, including Drážní Inspekce, the national investigating body of Czechia, and the national investigating body of France, in accordance with Article 28j of the Act.
9. Pursuant Article 28ja of the Act, the Commission participated in the peer review programme carried out as part of international cooperation among national investigating bodies of the European Union. A representative of PKBWK participated in the review of the National Investigating Body of the Netherlands as a member of the review team.
10. The Commission monitored reported railway occurrences and maintained the Railway Occurrence Record (EwZd).
11. In 2023, joint inspections of the reported railway occurrences were carried out by members of railway commissions and members of the Commission, including, but not limited to, measurements, tests and documentation analysis. In the course of the investigations into the causes and circumstances of the respective occurrences, the members of the Commission attended railway commission meetings and meetings with representatives of the Office of Rail Transport (UTK). The Commission provided much guidance to clarify occurrence site inspections as regards e.g. rolling stock that did not derail in front and aft of the derailed rolling stock, as well as infrastructure.

12. In accordance with Article 28g(2) of the Act, the President of the Office of Rail Transport notified the Commission of difficulties in establishing the causes of occurrences by the railway commissions, inviting the Commission to participate in meetings with representatives of the railway commissions.

13. Important factors that influenced the functioning of the Commission included:

- Cooperation with other independent bodies, with mutual respect for each other's remits, in connection with a railway occurrence under the Agreement of 27 June 2014 between the State Commission on Railway Accident Investigation and the Attorney General. The said Agreement applies also to cooperation with the Police, the Internal Security Agency (ABW), the Military Police and the Border Guard (in accordance with the definition of a body in charge of criminal proceedings provided in §1(5) of the Agreement). All provisions relating to the rights of PKBWK apply also to railway commissions.
- The Agreement of 16 December 2014 between the Commander-in-Chief of the Police and the State Commission on Railway Accident Investigation concluded to define the principles of cooperation in the field of mutual support of their respective training projects.
- Agreement no. P.070.3.2023 of 25 May 2023 on cooperation in the field of railway transport safety concluded between the President of the Office of Railway Transport and the Chairman of the State Commission on Railway Accident Investigation.
- Within the framework of experience sharing, improvements in the quality of the occurrence investigation system and enhancements of rail transport safety, the permanent members of the Commission participate in external training courses, conferences, seminars, meetings, plenary sessions, working groups and workshops organised by the European Union Railway Agency and bodies that investigate serious accidents, accidents and incidents in other European Union Member States.

3. Occurrences investigated between 1 January and 31 December 2023

3.1 Occurrences reported to the Commission by the entities mentioned in Article 28g of the Act

The obligation of infrastructure managers, railway carriers and railway siding users to immediately report serious accidents, accidents and incidents on railway lines to the Commission and to the President of UTK arose from Article 28g(1) of the Rail Transport Act. Furthermore, the obligation of the infrastructure manager or railway siding user in charge of the location concerned to report occurrences in writing arose from §7(1)-(5) of the Regulation of the Minister of Infrastructure and Construction of 16 March 2016 on serious accidents, accidents and incidents in rail transport

(Journal of Laws, item 369), hereinafter referred to as "the Regulation". Under the national legislation, rail transport occurrences are divided into the following types:

- 1) **serious accident – any accident caused by** a collision, derailment or any other occurrences with an obvious impact on safety regulation or safety management, resulting in **the death of at least one person or serious injuries to five or more persons** (a seriously injured person means a person who suffered a bodily injury or health disorder as a result of a serious accident or accident, and who was hospitalised for more than 24 hours as a result), or extensive damage to a rail vehicle, railway infrastructure or the environment that can be immediately estimated by the accident investigation commission to be at least €2 million;
- 2) **accident** - an unintended and sudden event or sequence of events involving a rail vehicle and resulting in adverse consequences for human health, property or the environment; accidents include, in particular:
 - collisions,
 - derailments,
 - level crossing occurrences,
 - occurrences involving persons, caused by a rail vehicle in motion,
 - fire in a rail vehicle;
- 3) **incident** - any occurrence, other than an accident or a serious accident, affecting the safety of railway operations.

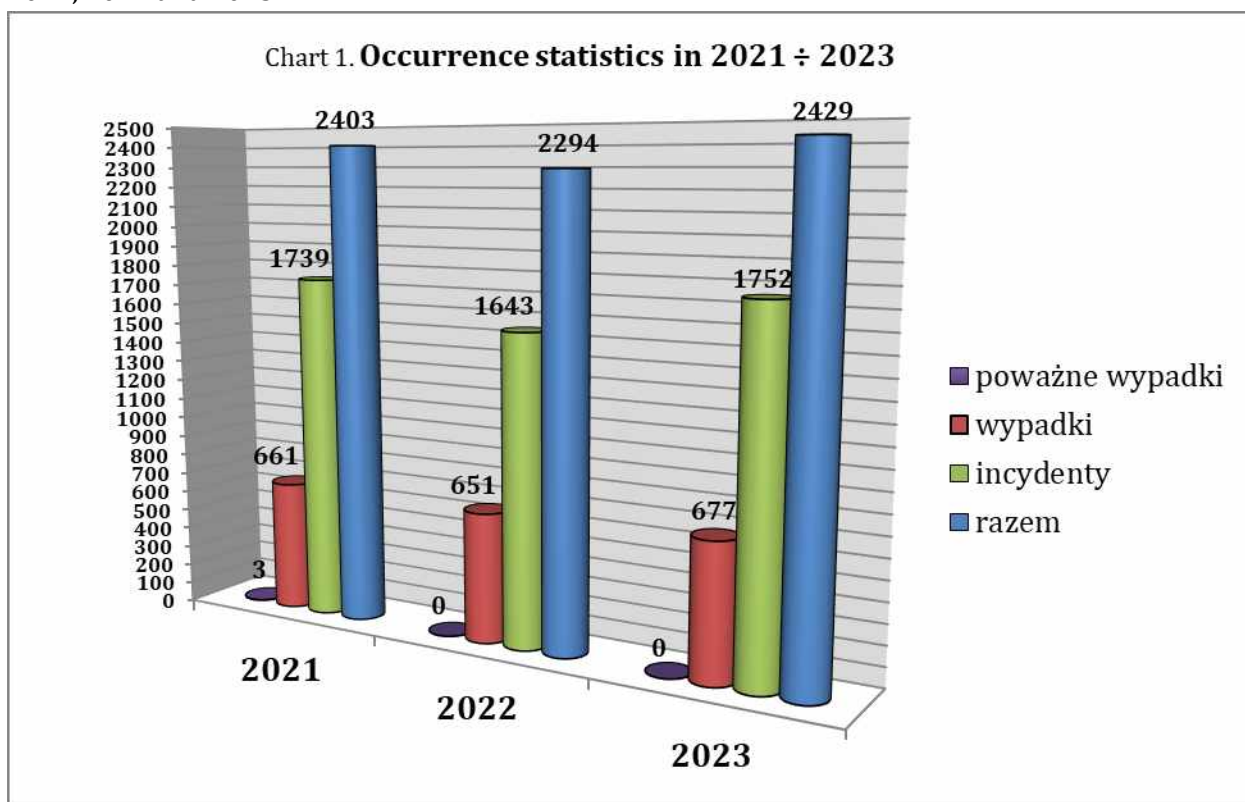
The aforementioned terms for the types of occurrences (serious accident, accident and incident) were defined according to the provisions of the Rail Transport Act.

Between 1 January and 31 December 2023, a total of 2,429 railway occurrences were reported to the Commission and registered in the Railway Occurrence Record (EwZd) according to the immediate cause qualification under the Regulation, including : 677 accidents and 1,752 incidents. The number and structure of the occurrences by type are shown in the table below.

Table 1. Occurrences reported to the Commission in 2023, as compared to 2022.

Type of occurrence: (SA - serious accident, A - accident, I - incident)	2022	2023	Amendment 2023/2022
SA (Cat. A)	0	0	no records in EwZd in 2023 an 2022
A (Cat. B)	651	677	+4.0%
I (Cat. C)	1,643	1,752	+6.6%
Railway occurrences total	2,294	2,429	+5.9%

The chart below presents a summary of serious accidents, accidents and incidents that occurred in 2021, 2022 and 2023.



	serious accidents
	accidents
	incidents
	total

Of which in 2023:

- as regards railway sidings – a total of 180 railway occurrences were reported to the Record (EwZd) (including 146 accidents and 34 incidents),
- as regards narrow-gauge railway lines – seven Category B railway occurrences (7 accidents) were reported to the Record.

The table below shows the number of casualties (fatalities, serious injuries and injuries) in occurrences in 2023, as compared to 2022 (compiled on the basis of documents provided by the obliged entities).

Table 2. Casualties in occurrences in 2023, as compared to 2022.

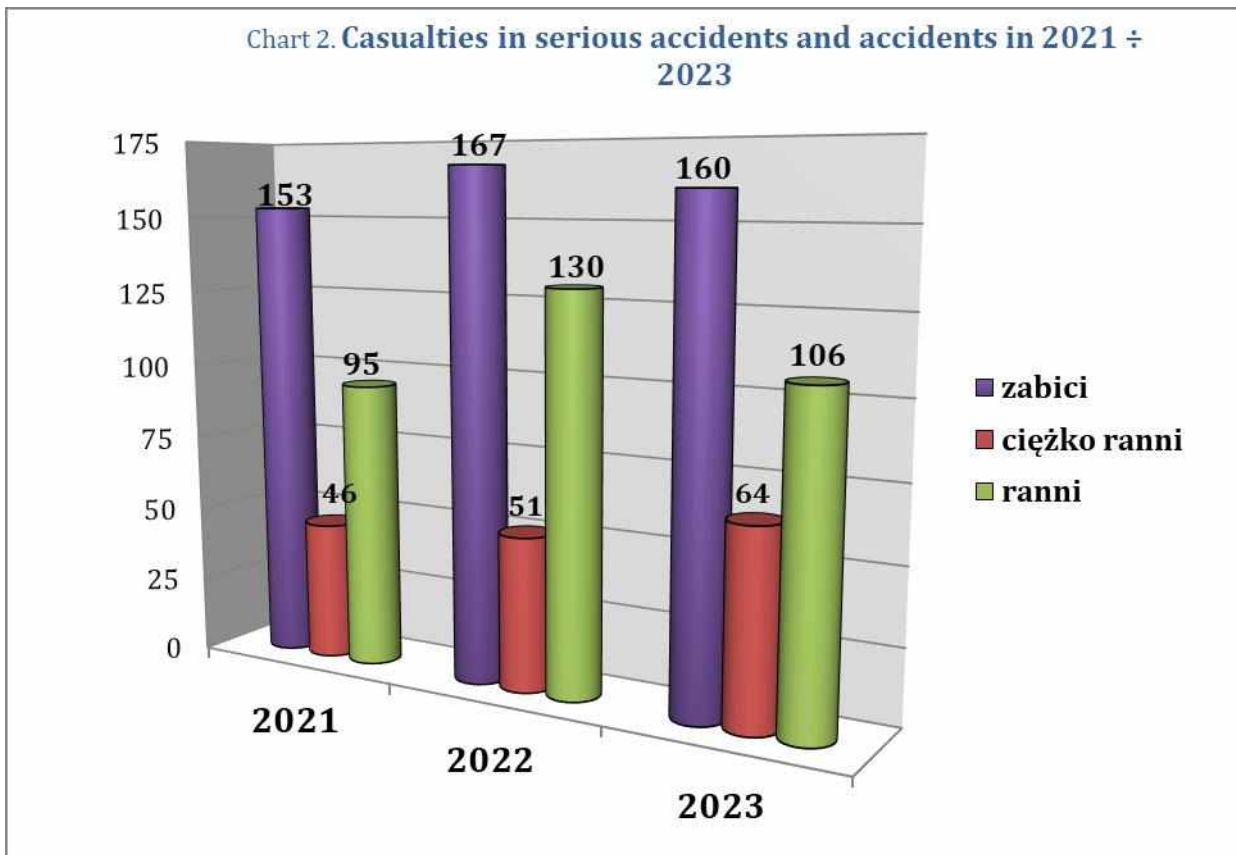
Casualties*)	2022	2023	Amendment 2023/2022
Fatalities	167**)	160**)	-4.2%
Serious injuries	51**)	64**)	+25.5%

Injuries	130**)	106**)	-18.5%
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*)Casualties: fatalities, serious injuries and injuries (including at railway sidings) according to the information provided as of the date of the Report (i.e. until 15 August 2024), the casualties categorised in the prosecutor's decisions as suicides or attempted suicides were not included.

**) Statistics (figures): fatalities, serious injuries and injuries as shown on the basis of *Commission Reports* and *Final Findings Reports* drawn up by railway commissions and submitted to PKBWK.

The chart below summarises the number of casualties: fatalities, serious injuries and injuries in occurrences in 2021, 2022 and 2023, based on *Commission Reports* and *Final Findings Reports* drawn up by railway commissions and submitted to PKBWK.



	fatalities
	serious injuries
	injuries

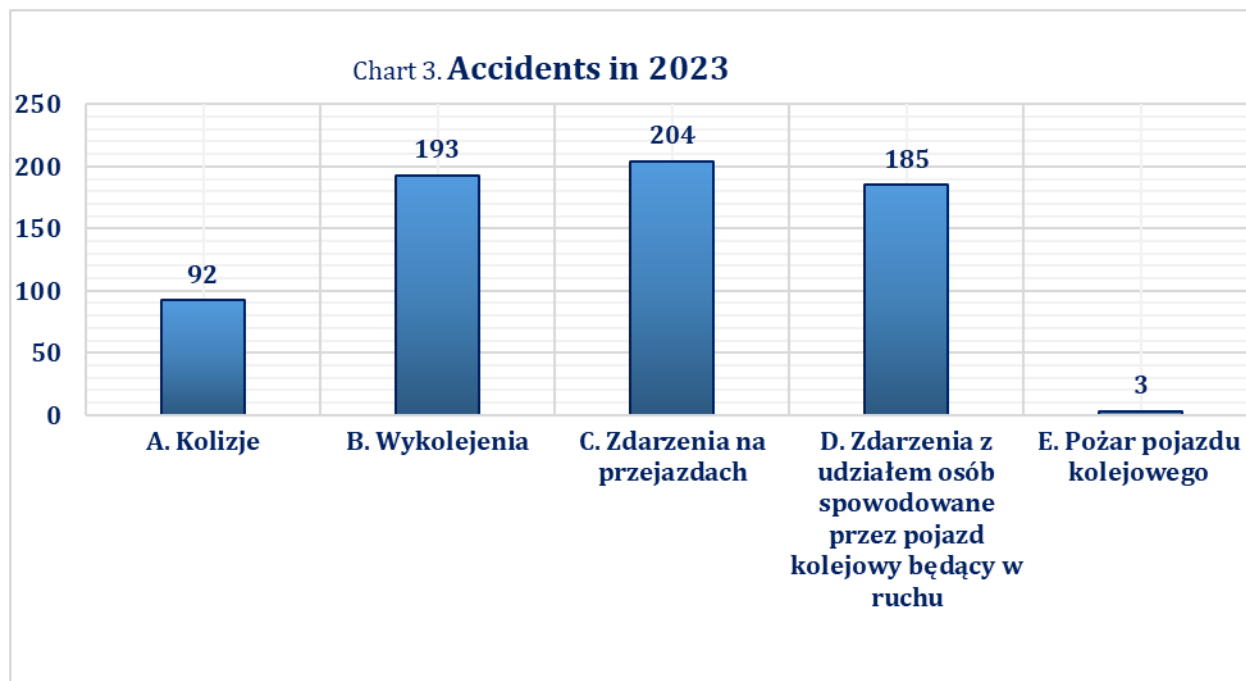
3.2 Breakdown of occurrences reported to the Commission by the entities mentioned in Article 28g of the Act

Categorisation of occurrences in 2023 in the relevant occurrence types by PKBWK is shown in the charts below:

a) **accidents – 677**

A. Collisions – 92

- B. Derailments – 193
- C. Occurrences at level crossings – 204
- D. Occurrences involving persons, caused by a rail vehicle in motion – 185
- E. Fire in a rail vehicle – 3.



	A. Collisions
	B. Derailments
	C. Level crossing occurrences
	D. Occurrences to persons involving a rail vehicle in motion
	E. Fire in a rail vehicle

b) incidents – 1,752

A. Occurrences (incidents) related to **the operation and handling of trains and rail vehicles** (including: *) incidents in Categories: C44 – 129, C45 – 11, C46 – 1, C47 – 5).

Number of incidents in the above categories: 146

B. Occurrences (incidents) **to persons involving a rail vehicle in motion**, without casualties or adverse consequences for property or the environment (i.e. *) incidents in Category C65 - 81).

C. Occurrences (incidents) **at level crossings** – failure of a road vehicle to stop ahead of a closed barrier (half-barrier) and damage either to the barrier or road signals (i.e. *) Category C66 - 82 incidents); malicious, hooligan or reckless offences, without any casualties or adverse consequences for property or the environment, endangering passengers or train staff (i.e. *) incidents in Category C64 - 638).

Number of incidents in the above categories: 720

D. Occurrences (incidents) involving **damage to or poor technical condition of a rail vehicle** and fire (including: *) incidents in Categories: C53 – 31, C54 – 177, C55 – 27).

Number of incidents in the above categories: 235

E. Occurrences (incidents) related to occurrences (**disruptions**) in the infrastructure (damage, malfunction of equipment, collision with an obstacle, and fire in a facility or near the track, i.e. *) incidents in Categories: C51 – 58, C52 – 3, C57 – 2, C60 –60, C64 – 6). Number of incidents in the above categories: 129

F. Occurrences (incidents) caused by **incorrect preparation of the route for the train** (dispatching, launching, accepting a train or a rail vehicle) and preparing the train for running (i.e. *) incidents in categories: C42 – 2, C43 – 76, C48 – 2, C50 – 24). Number of incidents in the above categories: 104

G. Other occurrences:

Uncontrolled release of dangerous goods, natural disasters, malicious, hooligan or reckless offences (throwing objects at a train, stealing cargo from a train, etc., break-up of a train/shunting consist which did not result in a wagon runaway, and other causes or a combination of several causes at the same time (i.e. *) incidents in Categories: C59 – 4, C62 – 13, C64 – 77, C68 – 215, C69 – 28).

Number of incidents in the above categories: 337.

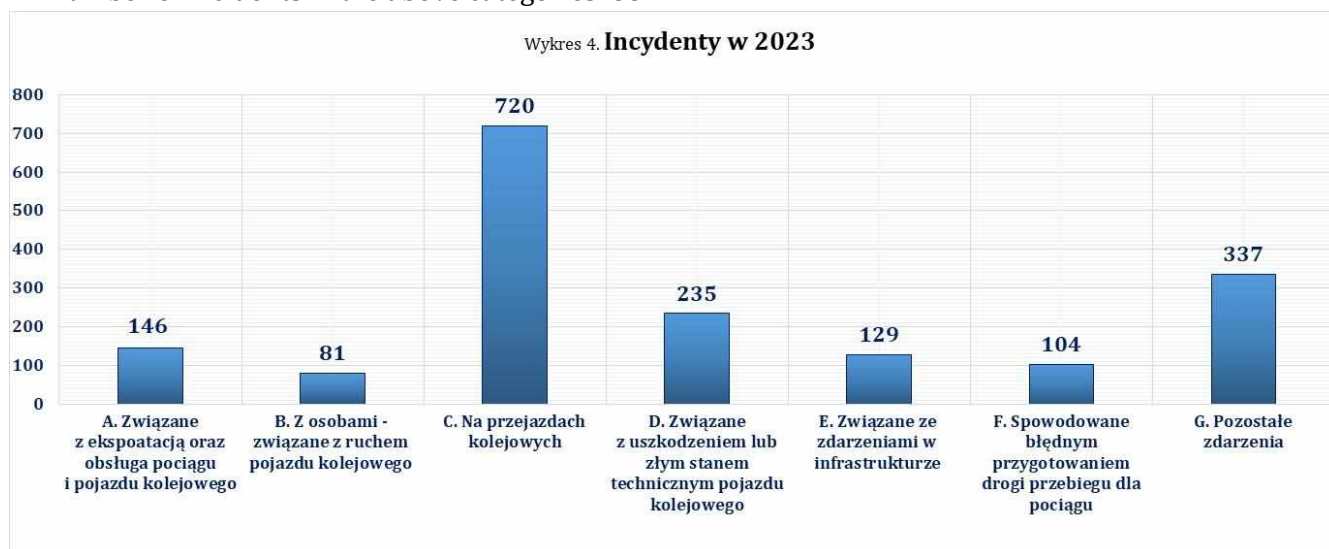
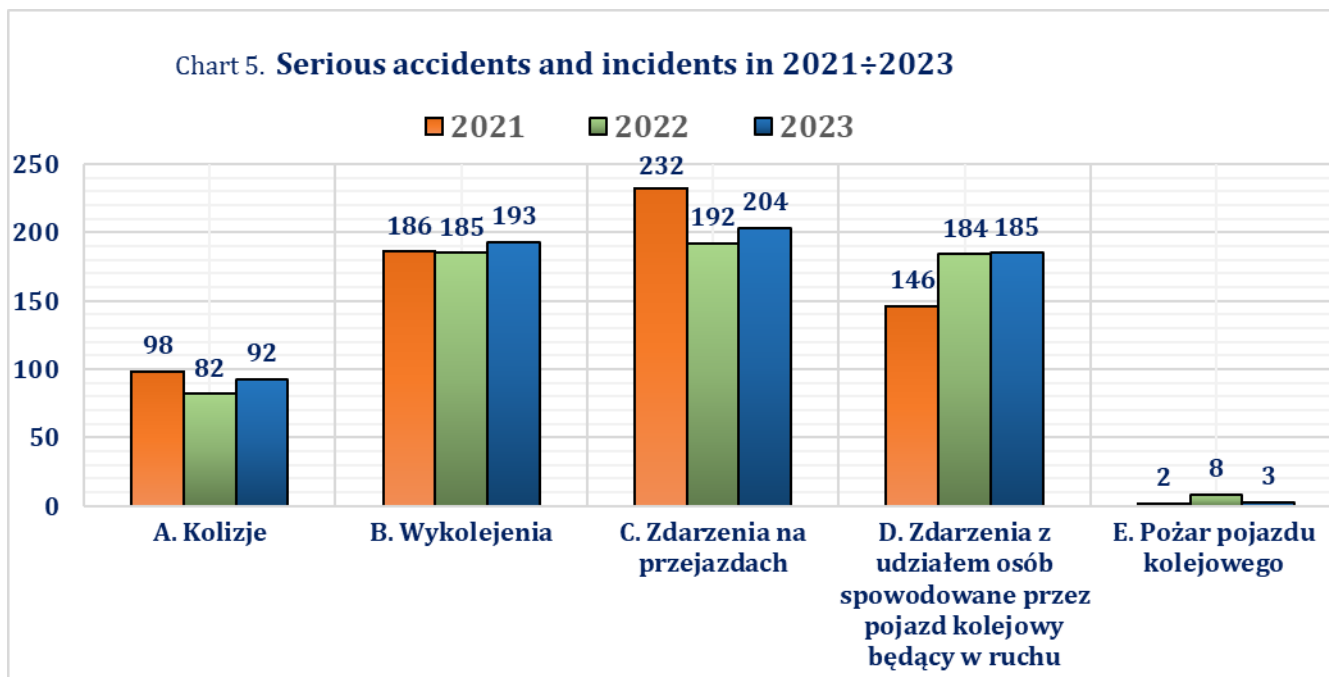


	Chart 4. Incidents in 2023
	A. Involving operation and handling of trains and rail vehicles
	B. To persons– involving a rail vehicle in motion
	C. At level crossings
	D. Involving damage to or poor technical condition of a rail vehicle
	E. Involving occurrences in infrastructure
	F. Caused by inappropriate setting of a train route
	G. Other occurrences
	A. Collisions
	B. Derailments
	C. Level crossing occurrences
	D. Occurrences to persons involving a rail vehicle in

*) Category (C) incidents - designation in accordance with the immediate cause qualification contained in the Regulation of the Minister of Infrastructure and Construction of 16 March 2016 on serious accidents, accidents and incidents in rail transport (Journal of Laws 2016, item 369)

	motion
	E. Fire in a rail vehicle

c) Comparative chart of serious accidents and incidents in 2021 ÷ 2023



d) Comparative chart of incidents in 2021 ÷ 2023

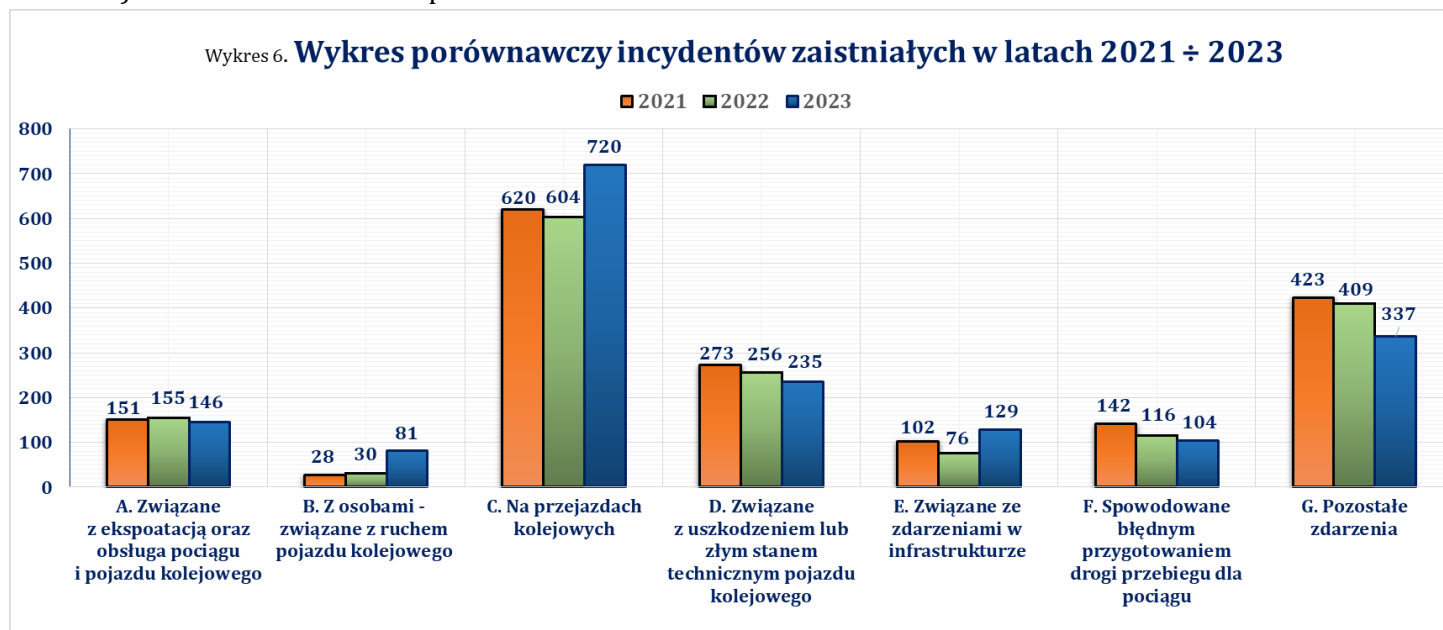


	Chart 6. Comparative chart of incidents in 2021-2023
	A. Involving operation and handling of trains and rail vehicles

	B. To persons – involving a rail vehicle in motion
	C. At level crossings
	D. Involving damage to or poor technical condition of a rail vehicle
	E. Involving occurrences in infrastructure
	F. Caused by inappropriate setting of a train route
	G. Other occurrences

3.3 Occurrences for which the Commission has started investigations in 2023.

3.3.1

A railway accident that occurred on 3 November 2022 at 18:45 hrs at the passenger stop Krzcięcice, track no. 2, at km 244.636 of railway line no. 8 Warszawa Zachodnia - Kraków Główny

Consequences of the occurrence:

- the occurrence resulted in the injury of a 22-month-old child who suffered a head injury and concussion, the child's guardian did not sustain any injuries
- there was no material damage



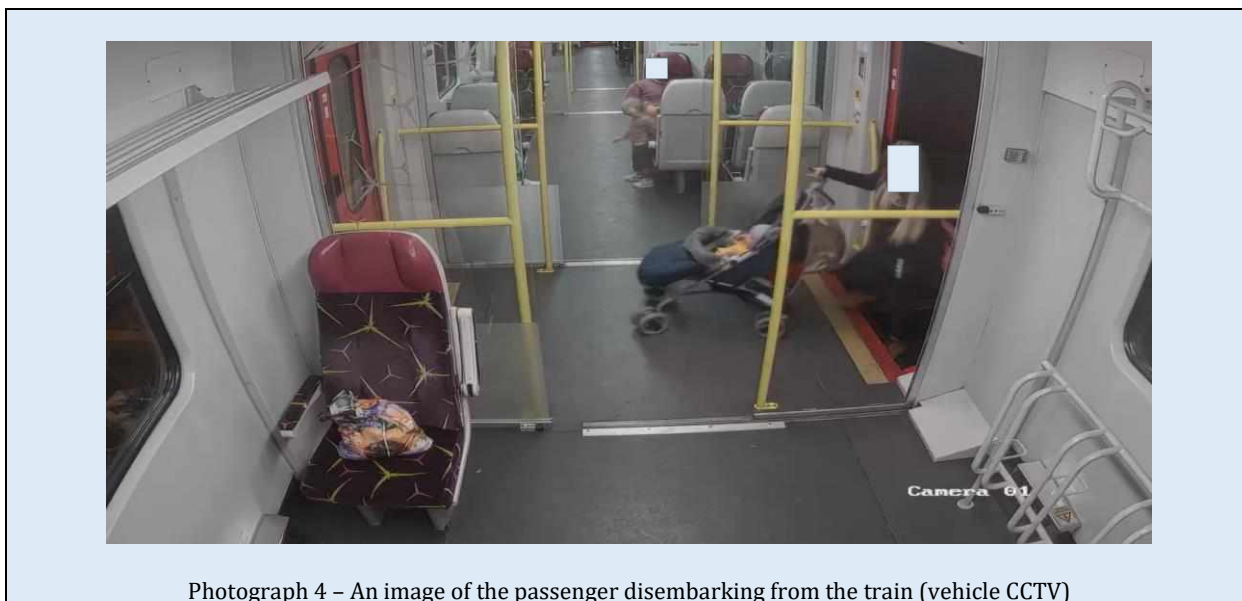
Photograph 1 – A view of the occurrence site at night from the passenger stop Krzcięcice (own material of PKBWK)



Photograph 2 – A view of the occurrence site at night from the passenger stop Krzcięcice (own material of PKBWK)



Photograph 3 – A view of Platform 2 with uneven pavement (own material of PKBWK)



Photograph 4 – An image of the passenger disembarking from the train (vehicle CCTV)

An accident involving passengers.

When disembarking through the last door of the fourth section of passenger train MOJ 32318/9 at the passenger stop Krzcięcice, a passenger with a child aged 22 months in a pram fell out of the train onto the ballast shoulder in the vicinity of a level crossing. The door of the rail vehicle through which the passenger disembarked was positioned approximately 20 m ahead of the platform in an area not intended for passenger service. The occurrence resulted in a serious injury to the child.

The Chairman of the State Commission on Rail Accident Investigation Mr Tadeusz Ryś issued a decision on 9 January 2023 on establishing an investigation to explain the causes and circumstances of the accident at the passenger stop Krzcięcice at km 244.636 of railway line no. 8. The occurrence was reported to the European Union Railway Agency and registered in the database under number PL-10352.

There was no need for the Chairman of the Commission to issue any recommendations to improve safety while the investigation was still in progress.

Measures taken since the occurrence

The railway commission classified the occurrence as a Cat. C-65 incident and made the following preventive conclusions in the Final Findings Report on completing the investigation:

- 1) The infrastructure manager shall consider installing a monitoring system at the level crossing at km 244.630 in order to ensure that any possible consequences of similar occurrences can be investigated.
- 2) As regards the Regulation of the Minister of Transport and Maritime Economy of 10 September 1998 on technical conditions to be met by railway structures and their positioning (Journal of Laws No. 151, item 987), the provisions of §98(9a) shall apply. Where a platform is longer than 85 m, the W4 sign "Stop here" at the passenger stop Krzcięcice shall be preceded by the W32 sign "Train head here" for the even direction (applicable to both

platforms). Installation of W32 signs shall be considered on analysing the local conditions at other PKP PLK S.A. locations.

- 3) The railway carrier POLREGIO S.A. - pursuant to Decision No. 2/2021 of the Chairman of the Emergency Management Team of POLREGIO Sp. z o.o. of 5 February 2021 Provision S1 repealing the order in letter No. PB03d-074-32/2020 of 13 March 2020 on the obligation for the rail vehicle driver to use centralised door opening system (deactivating the individual door opening button): Due to low temperatures and adverse weather conditions that may lead to excessive cooling of vehicles, the Company's Railway Plants shall remove the information placed in their vehicles concerning the automatic opening of the doors and formally inform the train crews about the changes. The Commission proposes to repeal the aforementioned provision and reintroduce centralised door opening by the train driver. Statement of reasons: With ongoing rail upgrades, alternating train runs on tracks 1 and 2 (running in the opposite direction to the main one) emergency track closures, passengers do not know on which side of the vehicle they will be getting off, particularly after dark; this applies in particular to the elderly, people with reduced mobility, women with children etc. The duration of stops is limited to 0.5 min. Allowing the doors to be opened individually is justified at the first departure station(no excessive cooling, energy savings).
- 4) POLREGIO S.A. Świętokrzyski Railway Plant in Kielce shall prepare an Information Bulletin concerning the occurrence in question. The bulletin shall be discussed at forthcoming periodic briefings for train crews, station masters, signallers, point operators, crossing keepers.
- 5) Furthermore, ISE Włoszczowa Płn. shall hold a discussion with station masters at the block post Krzcięcice (in the form of additional training) about the circumstances of the occurrence concerned and the possible course of action in similar situations, with a copy to be included in the technical and operational documentation.

Based on that investigation, the Commission drew up Report no. PKBWK 03/2023 (7 September 2023), in which it issued the following recommendations:

1. Carriers providing passenger carriage services shall arrange refresher training for train crews concerning compliance with the rules on stopping the train head at a designated place at stations and passenger stops.
2. PKP PLK S.A. shall add W32 signs ahead of W4 "Stop here" signs at stations and passenger stops with platforms longer than 100 m.
3. Carriers providing passenger carriage services shall carry out an information campaign among their passengers about the purpose and use of the intercom devices on board passenger trains, including in emergency or safety hazard situations. At present, the description of their purpose and manner of operation is unclear and incomprehensible to passengers.
4. Carriers providing passenger carriage services shall introduce an obligation for the train crew to check internal communications via the intercom when receiving the train in the departure station and to respond appropriately to any calls made.
5. Carriers providing passenger carriage services shall expand their instruction briefings by adding the topic of exchange of information on board trains with available technical means between the passengers, train crew and train driver in situations where the safety of

passengers and the train is at risk.

6. PKP PLK S.A. Railway Line Plant in Kielce shall rectify the irregularities mentioned in Section V.3 of Report No. PKBWK 03/2023, i.e.
 - a) At the Cat. A level crossing, which is 33 m long and crosses two railway lines: no. 8 (double-track) at km 244.630 and no. 65 (single-track) at km 311.347, there are two light points installed, which is in conflict with §88 of the Regulation of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met by crossings of railway lines and sidings with roads, and on their positioning (Journal of Laws, item 1744), which provides: "The number of light points shall be determined according to the length and width of the level crossing or passage, taking into account the illuminance and light evenness values in accordance with Standard PN-EN 12464-2 Light and lighting."
 - b) Redundant P12 absolute stop lines at Cat. A level crossing at km 244.630.
 - c) Fencing of the Cat. A level crossing at km 244.630 is incompatible with the Regulation of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met by crossings of railway lines and sidings with roads, and on their positioning (Journal of Laws, item 1744), which provides: *The sections between the track and barrier shall be fenced off with railings to prevent access to the track by bypassing the barrier where the positioning of the barrier permits this. The ends of the railing closest to the track shall be positioned 3 m from the outermost rail.*
 - d) Platform 2, which is made of paving slabs, has irregularities that create difficulties for passengers when boarding and disembarking.

3.3.2 A railway accident that occurred on 12 December 2022 at 02:35 hrs on the Kozięłowy - Poznań Piątkowo route, track no. 2, km 11.788 of railway line no. 395 Zieliniec - Kiekrz, Category C level crossing

Consequences of the occurrence:

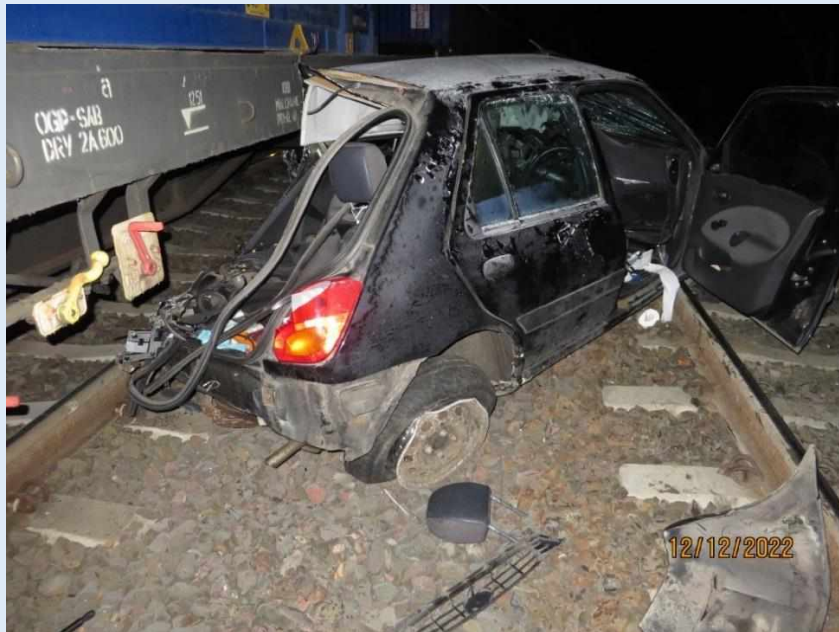
- the passenger car driver sustained injuries and was taken to hospital
- the Ford passenger car was damaged
- electric locomotive ET22-1082 was damaged
- the train did not derail



Photograph 5 – A view of track no. 2 from the road from the distance of 5 metres from the outermost rail (own material of PKBWK)



Photograph 6 - Marking of the crossing after the arrival of representatives of PKBWK (own material of PKBWK)



Photograph 7- Consequences of the occurrence (source: material provided by the railway commission)

A level crossing occurrence - category: accident.

An occurrence at a Category C level crossing during which a Ford passenger car went directly in front of an incoming train with active road signals prohibiting entry beyond the signals, which led to a collision of a freight train with the passenger car.

The Chairman of the State Commission on Rail Accident Investigation Mr. Tadeusz Ryś issued a decision on 17 January 2023 on establishing an investigation to explain the causes and circumstances of the accident at the Category C level crossing at km 11.788 of railway line no. 395. The occurrence was reported to the European Union Railway Agency and registered in the database under number PL-10357.

On their arrival at the occurrence site, representatives of the Commission saw that the light signals had been enabled and the level crossing had been marked with a B-20 "STOP" sign with a board "Signalling out of order", and they contacted the Deputy Head of the Operation Section Poznań Franowo to inform him about the situation at the crossing. The Deputy Head of the Section instructed the train dispatcher at the Poznań Piątkowo station to disable the signalling on the crossing.

Based on that investigation, the Commission drew up Report no. PKBWK 04/2023 (11 September 2023), in which it issued the following recommendations:

1. Authorised infrastructure managers shall take targeted actions addressed to their personnel (operation, repair, maintenance) to refresh the uniform rules of conduct in the event of non-activity of traffic protection devices at level crossings.
2. In the event of a malfunction of automatic crossing system devices which cause the Osp-1 aspect to be displayed by a crossing distant signal one track of a given level crossing, infrastructure managers shall cause that the Osp-1 aspect is displayed for all tracks within the level crossing concerned.
3. In the event of an unserviceability of the automatic crossing system due to a malfunction of its elements, the infrastructure manager PKP PLK S.A. shall prohibit re-activation of the automatic crossing system from the remote control device level by the operating personnel after turning off road signals by that personnel.
4. The infrastructure manager PKP PLK S.A. shall inspect and enhance supervision of the correctness and completeness of the provisions laid down in Books E1758.
5. The railway carrier PKP CARGO S.A. shall enhance supervision of the management of rail vehicle maintenance documentation, in particular as regards its accuracy concerning the condition of the vehicle
6. The infrastructure manager PKP PLK S.A. shall take effective actions to synchronise time in the electronic time system which it operates.
7. Authorised infrastructure managers shall include in their hazard records the hazards relating to all types of structures erected within the visibility triangle. In each case, they shall conduct a risk analysis at the stage of designing structures close to level crossings, taking into account the local conditions of a given level crossing.
8. Railway siding users, operators of narrow-gauge railways and infrastructure managers

exempt from the obligation to obtain a safety authorisation and authorised to operate under a safety certificate shall inspect the conditions of development within visibility triangles, taking into account inter alia the provisions of Paragraphs 14 and 15, Part B of Annex 3 to the Regulation of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met by crossings of railway lines and sidings with roads, and on their positioning (Journal of Laws of 2015, item 1744, as amended).

3.3.3 A railway accident that occurred on 19 January 2023 at 18:37 hrs on the Szczecin Podjuchy – Szczecin Port Centralny SPA route, km 349.520 of track no. 1, railway line no. 273 Wrocław Główny – Szczecin Główny

A train collision, i.e. train LTE 785009 (an E182-055-4 locomotive alone) operated by railway carrier CTL Logistics Sp. z o.o. from Rzepin to Szczecin Port Centralny SPB182 ran into the last wagon of freight train TME 684013 operated by railway carrier POL-MIEDŹ TRANS Sp. z o.o. from Głogów Wróblin to Reclaw which was stationary before a home signal B for Szczecin Port Centralny SPA station showing the aspect S1 "Stop".

The Chairman of the State Commission on Rail Accident Investigation Mr. Tadeusz Ryś issued a decision on 27 January 2023 on establishing an investigation to explain the causes and circumstances of the accident that had occurred on the Szczecin Podjuchy – Szczecin Port Centralny SPA route, at km 349.520 of track no. 1, railway line no. 273. The occurrence was reported to the European Union Railway Agency and registered in the database under number PL-10366.

Consequences of the occurrence:

- locomotive E182-055-4 leading train LTE 785009 of the carrier CTL Logistics Sp. z o.o. was damaged
- the last wagon no. 84 51 594 4675 - 4 (loaded with stone) in train TME 684013 of the carrier POL-MIEDŹ TRANS Sp. z o.o. was damaged



Photograph 8- Consequences of the occurrence (source: material provided by the railway commission)



Photograph 9 - A view of the occurrence site (source: materials provided by the railway commission)



Photograph 10 - A view of the occurrence site (source: materials provided by the railway commission)



Photograph 11- Consequences of the occurrence (source: material provided by the railway commission)

There was no need for the Chairman of the Commission to issue any recommendations to improve safety while the investigation was still in progress.

Based on that investigation, the Commission drew up Report no. PKBWK 01/2024 (16 September 2024), in which it issued the following recommendations:

1. The infrastructure manager PKP PLK S.A. shall, within the framework of its periodic and additional training and courses for signallers, place particular emphasis on the prescribed use of telephone signalling messages provided while managing traffic on the basis of train signalling by telephone, as prescribed in Instruction Ir-1.
2. The infrastructure manager PKP PLK S.A. shall extend particular supervision to workers directly involved in rail traffic management (traffic officers, point operators) with less than two years of employment.
3. The infrastructure manager PKP PLK S.A. shall enhance actions concerning periodic replays of recorded conversations from traffic operation posts, in particular under restriction in force (signalling by telephone, issuing orders and reporting readiness of routes).
4. The infrastructure manager PKP PLK S.A. shall introduce permanent supervision of the correct use of telephone signalling messages when managing traffic on the basis of train signalling by telephone, in accordance with templates contained in Instruction Ir-1.
5. The infrastructure manager PKP PLK S.A. shall verify the presence, in the railway network under its management, of the W28 "Radio channel indicators" at the locations of change of the prescribed train radio communication channel.
6. In order to ensure good visibility of the return reflection from Pc 5 signal disks (daylight) on curves, the railway carriers shall implement the obligation to use Pc 5 signal disks "Marking of the end of a train or another rail vehicle" in accordance with the technical requirements laid down in Part II of Instruction Ie-102 "Technical requirements for indicators and signal discs" on freight trains operating on railway lines managed by PKP Polskie Linie Kolejowe S.A.
7. The railway carrier CTL Logistics Sp. z o.o. shall ensure supervision of the correct setting of the real time in traction vehicle recorders.
8. The infrastructure managers shall procure that works contractors eliminate visibility of sources of light illuminating their construction sites in the area of active railway tracks which dazzle drivers of rail vehicles.

3.3.4 A railway accident that occurred on 7 February 2023 at 02:00 hrs at Wrocław Brochów station, km 1.701 of track no. 1N of railway line no. 349 Św. Katarzyna – Wrocław Kuźniki

Consequences of the occurrence:

- train break-up between the 34th and 35th wagons and between 42nd and 43rd wagons in the train set
- wagon derailment (breakage of the first axle in the first bogie - Eamnos wagon no. 33 51 5839 055-9)
- damaged turnouts no. 501, 502, 503, and 506 of tracks no. 1N and 3N, and inserts between the turnouts



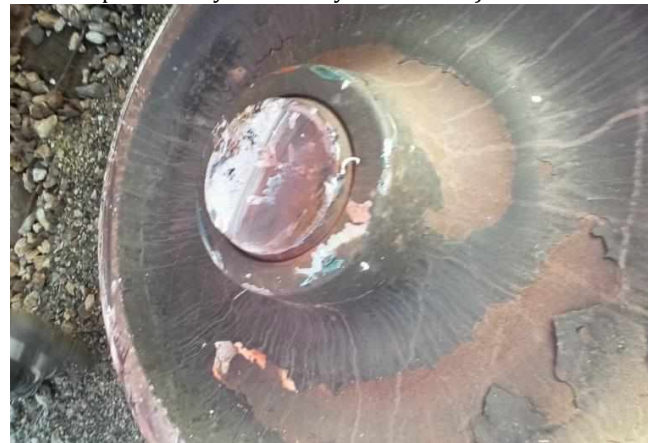
Photograph 12 – A view of the occurrence site (source: materials provided by the railway commission)



Photograph 13 – A view of the derailed wagon (source: materials provided by the railway commission)



Photograph 14 – Consequences of the occurrence (source: material provided by the railway commission)



Photograph 15 – Consequences of the occurrence (source: material provided by the railway commission)

The occurrence concerned involved derailment of the last loaded Eamnos-type wagon no. 33 51 5839 055-9 in the set of freight train no. 654027 of the carrier T&C Ltd at turnout no. 501 of railway line no. 349 Św. Katarzyna - Wrocław Kuźniki, track no. 1N, as a result of breakage of the first axle in the first bogie of the said wagon. The wagon travelled 124.8 m in the derailed

condition passing through turnouts no. 501, 503 and 506, and stopped on track no. 1N at km 1.826 of line no. 349. All wheelsets of the wagon were derailed. A broken part of the wheelset, moving in the driving direction of the train, additionally damaged turnout no. 502 and track no. 3N.

The Chairman of the State Commission on Rail Accident Investigation Mr. Tadeusz Ryś issued a decision on 22 February 2023 on establishing an investigation to explain the causes and circumstances of the accident at Wrocław Brochów station at km 1.701 of track no. 1N, railway line no. 349. The occurrence was reported to the European Union Railway Agency and registered in the database under number PL-10379.

TORPOL S.A., an entity in charge of maintenance of wagons, took actions involving detailed non-destructive testing of all wheelsets in its wagons in order to prevent similar occurrences in the wagons in the future.

The following preventive measures were developed and implemented to either prevent or reduce the risk:

- 1) detailed ultrasonic testing (UT) and magnetic particle testing (MT) of all 136 wheelsets in 34 coal wagons was carried out at a rolling stock repair facility,
- 2) requirements were extended as regards obligatory detailed ultrasonic testing (UT) and magnetic particle testing (MT) as part of revision repairs and overhauls of wagons in the Maintenance System Documentation (MSD) of freight wagons,
- 3) the Management Board of TORPOL S.A. decided to carry out audits at all entities that conduct wheelset revisions for TORPOL S.A. The findings of the audits will be used for updating the list of qualified suppliers.

The Chairman of the Commission did not issue any recommendations to improve safety while the investigation was still in progress.

Based on that investigation, the Commission drew up Report no. PKBWK 02/2024 (23 January 2024), in which it issued the following recommendations:

1. Entities in charge of maintenance (ECMs) of freight wagons shall strengthen supervision of the process of repairs of wheelsets during replacement of wheels and P4 and P5 maintenance.
2. Entities in charge of maintenance (ECMs) of freight wagons shall check their Maintenance Management Systems (MMSs) for factors contributing to the occurrence, and shall consider inclusion of the following elements in those systems:
 - a) detailed requirements regarding contractors that perform P4 and P5 maintenance activities,
 - b) inclusion in the freight wagon Maintenance Management System (MMS) of competence requirements and detailed tasks for workers authorised to perform commissioning, in particular as regards in-process commissioning.
3. As part of its Maintenance Management System, TORPOL S.A. shall take actions relating to:
 - a) increasing the supervision of compliance with the Maintenance Management System

procedures,

- b) ensuring detailed supervision of rail vehicle maintenance service providers, in particular as regards tests of running gear.
4. MEGA-MET Sp. z o.o. Sp.k. in Łazy shall take actions to strengthen the supervision of its P4 and P5 maintenance activities, including enhanced quality control of repair activities provided, in particular ones that are outsourced.
 5. The President of the Office of Rail Transport shall finalise the actions commenced in 2020 to introduce *the obligation regarding traceability of wheelsets for freight wagon axles* in accordance with *the Implementation guide for the European Wheelset Traceability (EWT) for freight wagon axles* made in Brussels on 26 July 2010 by the *Joint Sector Group for ERA Task Force on wagon/axle maintenance* and agreed with the National Safety Authority.
 6. Entities in charge of maintenance (ECMs) of freight wagons shall immediately implement the obligation to carry out detailed documented¹⁾ non-destructive tests of wheelset axles prior to their re-introduction to service.
 7. The President of the Rail Transport Office shall consider appointing a team of experts to obtain opinions and knowledge to define the scope of additional tests of wheelset axles in service in freight wagons for longer than 40 years.

3.3.5 A railway accident that occurred on 20 February 2023 at 18:11 hrs on the Chałupki – Krzyżanowice route, track no. 2, Cat. B level crossing at km 47.973 of railway line no. 151 Kędzierzyn-Koźle – Chałupki

A railway crossing occurrence.

Freight train no. 441008 operated by the carrier PKP CARGO S.A. on the route Bohumin Vrbice – Tychy Fiat ran into a stationary Scania road tractor with a Wielton semi-trailer which had been enclosed by a barrier that blocked road traffic in the direction of the exit from the level crossing, preventing the road tractor from exiting the crossing.

The occurrence consisted in the train colliding with the side of the semi-trailer of the road tractor. The latter was prevented from exiting the level crossing by a passenger car which stopped to give way to pedestrians on a marked pedestrian crossing. After the pedestrians left the pedestrian crossing, the passenger vehicle exited the level crossing while the road tractor with a semi-trailer remained enclosed between the barriers.

The Chairman of the State Commission on Rail Accident Investigation Mr. Tadeusz Ryś issued a decision on 1 March 2023 on establishing an investigation to explain the causes and circumstances of the accident at a Category B level crossing located on the Chałupki – Krzyżanowice route, track no. 2, km 47.793, railway line no. 151. The occurrence was reported to the European Union Railway Agency and registered in the database under number PL-10387.

Consequences of the occurrence:

- damaged locomotive ET22-1062
- damaged Scania road tractor with Wielton semi-trailer



Photograph 17 – Consequences of the occurrence – the place where the head of the road tractor stopped after the collision (source: material provided by the railway commission)



Photograph 16 – Attempts to lift the barrier bar undertaken by the witnesses (source: YouTube)



Photograph 18 – Consequences of the occurrence – damage sustained by the road tractor's semi-trailer (source: materials provided by the railway commission)



Photograph 19 – Consequences of the occurrence – damaged locomotive ET22-1062 (source: materials provided by the railway commission)

The Chairman of the Commission, having regard to the existing state of reduced safety in accordance with the provisions of Article 281(1a) of the Act of 28 March 2003 on rail transport (consolidated text: Journal of Laws of 2021, item 1984), addressed a letter of 17 March 2023 to the Director of PKP PLK S.A. Railway Line Plant in Tarnowskie Góry, and a letter of 7 April 2023 to the Director of GDDKiA Katowice Branch, in which he issued the following recommendations aimed at improving rail transport safety at the level crossing concerned:

GDDKiA Branch in Katowice shall:

- 1) change the organisation of pedestrian traffic in the area of the level crossing by removing the vertical and horizontal pedestrian crossing signage in the area of the level crossing concerned;
- 2) install pavement fencing to protect pedestrians and channel pedestrian traffic at the drive of barrier N2 closing the entry to the level crossing and at the drive of barrier N3 closing the pedestrian pathway on the pavement in the direction of the tracks;
- 3) take immediate actions to relocate the pedestrian crossing from the immediate vicinity of the level crossing to at least 22 metres away from the entrance barrier on the entry lane (the recommendation is under implementation).

PKP PLK S.A. Railway Plant in Tarnowskie Góry shall:

- 4) remove powered barrier no. N4 closing the exit from the level crossing;
- 5) change the function of barrier no. N3 from a barrier closing the exit from the level crossing to a barrier closing the pedestrian pathway on the pavement in the direction of the tracks for the duration of train passage; Replace the bar of barrier N3 with a type that will secure only the pavement, and the barrier should operate in the entrance barrier sequence;
- 6) change the location of the drive of barrier N2 closing the entrance to the level crossing to meet the requirements laid down in the Regulation;
- 7) install lamps on the barrier bars to ensure their visibility in accordance with the requirements of the Regulation;
- 8) change the location of the road signals to ensure their visibility in accordance with the requirements of the Regulation;
- 9) introduce a permanent 60 km/h speed limit for trains along the entire width of the Category B level crossing located on the Chałupki - Krzyżanowice route, km 47.973 of railway line no. 151 Kędzierzyn Koźle - Chałupki, until the barriers closing the road traffic in the direction of the exit from the level crossing.

Based on that investigation, the Commission drew up Report no. PKBWK 05/2023 (19 December 2023), in which it issued the following recommendations:

1. The Minister in charge of transport shall lay down, among others, the conditions of positioning pedestrian crossings at level crossings in the implementing provisions to the Construction Law.
2. The Minister in charge of transport shall take actions to amend the Regulation of the Minister of Infrastructure and Development on the technical conditions to be met by crossings of

railway lines and sidings with roads, and on their positioning as regards activation of lights on all barrier bars simultaneously with the activation of road signals.

3. Authorised railway infrastructure managers, users of railway sidings, operators of narrow-gauge railways and infrastructure managers exempt from the obligation to obtain a safety authorisation and authorised to operate under a safety certificate shall inspect level crossings as regards the location of pedestrian crossings in their immediate vicinity. Shall any such pedestrian crossings be identified, they shall immediately act together with the relevant road manager to move those pedestrian crossings outside the level crossing's danger zone.
4. Railway infrastructure managers shall implement recommendation no. 2) Point 4.2 issued by the Commission in the PKBWK's Annual Report 2018, i.e.

"Infrastructure managers shall remove exit barriers in automatic crossing systems at Category B level crossings where solutions with four half-barriers are employed. Such a configuration is inconsistent with the provisions of Point 6.2 of Annex no. 4 to the Regulation of the Minister of Infrastructure of 3 July 2003 on the detailed technical conditions concerning road signs and signals and road traffic safety devices, and on the conditions of their installation on roads (consolidated text: Journal of Laws of 2019, item 2311), which provides that: "barriers U-13a and U-13b which close the entire width of the roadway shall be used at Category A level crossings, whereas half-barriers U-13c shall be used at Category B level crossings. Half-barriers shall be positioned so that they close the right half of the road on each side (also where half-barriers are installed on one-way roadways.)"

In addition to the recommendation of 2018, efforts should be made to separate traffic lanes on one-way roads by means of installing separators.

5. PKP PLK S.A. Railway Line Plant in Tarnowskie Góry shall: - change the position of the cameras at the level crossing to provide for monitoring of the area of the entire level crossing together with the road signals; - change the operation of the sound signal, which at present generates acoustic warning signals after rolling stock engages the switch-off sensor (as per the system's Technical and Operational Documentation).

3.3.6 A railway accident that occurred on 19 May 2023 at 09:51 hrs on the Komorów – Podkowa Leśna Główna route, track no. 51, Cat. D level crossing, km 18.805 of railway line no. 47 Warszawa Śródmieście WKD – Grodzisk Mazowiecki Radońska

Consequences of the occurrence:

- damage to a Toyota Corolla passenger car
- damage to electric multiple unit EN97-005
- no injuries



Photograph - A view of the foreground at the moment of the accident recorded by the rail vehicle's camera (source: materials provided by the railway commission)



Photograph 21 - A view of the collision site (source: materials provided by the railway commission)



Photograph 22 - Consequences of the occurrence (source: materials provided by the railway commission)

An occurrence at a Category D road-railway crossing (hereinafter referred to as "level crossing" in accordance with the Road Traffic Act) in which a Toyota Corolla passenger car entered the level crossing from its left side directly in front of the head of an oncoming train operated by carrier Warszawska Kolej Dojazdowa sp. z o. o. (hereinafter referred to as "WKD"), which caused a collision with the oncoming rail vehicle. The car was hit by the "a" coupler of the electric multiple unit on the rear right door and hung on the coupler, which penetrated into the cabin of the car. The car was pushed in such a jammed position for around 3 m.

The Chairman of the State Commission on Rail Accident Investigation Mr. Tadeusz Ryś issued a decision on 30 May 2023 on establishing an investigation to explain the causes and circumstances of the accident at a Category D level crossing located on the Komorów – Podkowa Leśna Główna route, track no. 1, km 18.805 of railway line no. 47. The occurrence was reported to the European Union Railway Agency and registered in the database under number PL-10416.

In the course of the investigation, pursuant to the provisions of Article 28l(1a) of the Act of 28 March 2003 on rail transport (consolidated text: Journal of Laws of 2023, item 602), the Chairman of PKBWK sent a letter on 31 July 2023 to the road manager, i.e. the County Governor's Office in Pruszków, and the infrastructure manager, i.e. Warszawska Kolej Dojazdowa Sp. z o.o., in which he issued the following recommendations to enhance the safety in rail transport with respect to the level crossing concerned:

- 1) Introduce no-left-turn rule after passing the level crossing from right to left from the county road to the municipal road running in parallel with track no. 2 of line 47 WKD (addressee: the manager of the county road – the County Governor's Office in Pruszków).
- 2) Ensure visibility of road signs, in particular: A-10, G1-a, G1-b, G1-c, B-20 and G-4 from both sides of the approach roads, and introduce mechanisms to ensure on-going supervision in the future of removing the vegetation to ensure good visibility of those signs (addressee: the manager of the county road - the County Governor's Office in Pruszków).
- 3) Adjust the settings of the mirrors so that they ensure visibility of the head of trains approaching the level crossing (addressee: the manager of the county road - the County Governor's Office in Pruszków).
- 4) Adjust – move the apparatus cabinets to ensure visibility of the head of train approaching the level crossing (addressee: the infrastructure manager – WKD Sp. z o. o.).
- 5) Install speed bumps on both sides of the level crossing to limit the speed of cars approaching the level crossing (addressee: the manager of the county road - the County Governor's Office in Pruszków).
- 6) Move the P-12 absolute stop lines on both sides of the level crossing so that they are no longer located as today in the axis of intersections with the roads running parallel with the railway line (addressee: the manager of the county road - the County Governor's Office in Pruszków).
- 7) Install additional devices at the level crossing to record transgressions committed by road

vehicle drivers where the B-20 sign is placed, and install light panels with the message "Caution. Train" to inform road vehicle drivers about the level crossing (addressee: the infrastructure manager – WKD Sp. z o. o.).

- 8) Considering the exposure factor, the manager of the railway line shall take action to re-classify the level crossing from Category D to a higher category "C" (it is not possible to install Cat. B devices due to terrain limitations) and to install additional devices to warn/record transgressions of road vehicle drivers when signals are given by road signals (addressee: the infrastructure manager - WKD Sp. z o.o.).

Based on that investigation, the Commission drew up Report no. PKBWK 03/2024 (1 February 2024), in which it issued the following recommendations:

1. The infrastructure manager Warszawska Kolej Dojazdowa Sp. z o. o. and the County Governor's Office in Pruszków shall implement the recommendations issued during the investigation and set forth in Section V.2 of this Report.
2. The manager of the county road - the County Governor's Office in Pruszków shall ensure supervision and control mechanisms for the appropriate visibility of the level crossing from the road, and of the road signs informing about the level crossing, including actions to ensure regular removal of vegetation that obstructs the visibility of the road signs.
3. The infrastructure manager - Warszawska Kolej Dojazdowa Sp. z o. o. shall re-analyse the risk of accidents at level crossings and, where necessary, shall take measures to mitigate the risk.

3.3.7 A railway incident that occurred on 8 May 2023 at 07:26 hrs on the Góra Włodowska - Zawiercie route, track no. 1, km 212.400 of railway line no. 4 Grodzisk Mazowiecki - Zawiercie

Consequences of the occurrence:

- impediments to organisation of railway traffic



Photograph 23 - source: a photograph taken by the driver of train no. 14001



Photograph 24 – source: a photograph taken by the driver of train no. 14001

On 7 May 2023 at 00:01 hrs, track no. 2 of the Góra Włodowska - Zawiercie route was closed on a 24-hour basis for the purpose of modernisation of line no. 4 under an on-going project titled "Modernisation of Railway Line No. 4 – Central Railway Line Stage II". On 8 May 2023 at around 07:00 hrs, the trackmaster in charge of the works arrived with workers by car to the site designated by the work organisation manager. The group was tasked with dismantling the rail attachments in closed track no. 2, but commenced work on active track no. 1 instead. While the group was in the process of dismantling the rail attachments, train no. 14001 operated by the carrier PKP INTERCITY S.A. between Warszawa Wschodnia and Bohumin departed Góra Włodowska station at 07:24 hrs. When at km 211.800 of the Góra Włodowska – Zawiercie route, the train driver noticed persons in high-visibility vests working on active track no. 1 on which his train was going. The train driver had been informed that the works would be carried out on track no. 2. When the train driver noticed the workers on the track on which he was going, he commenced emergency braking and at the same time gave the Rp1 "Attention" warning sound signal. The head of the train stopped at km 212.200, i.e. 200 m ahead of the working group, who were hastily leaving the trackway. The train did not enter the section with rail attachments disengaged from the sleepers.

The Chairman of the State Commission on Rail Accident Investigation Mr. Tadeusz Ryś issued a decision on 6 June 2023 on establishing an investigation into the railway incident on the Góra Włodowska – Zawiercie route, track no. 1, km 212.400 of railway line no. 4. The occurrence was reported to the European Union Railway Agency and registered in the database under number PL-10418.

Measures taken by the railway commission following the occurrence:

- 1) The railway commission investigating the circumstances of the occurrence motioned for removal from duties for the trackmaster who supervised the work of the second group that was disengaging spring rail attachments from the sleepers on active track no. 1 of the Góra Włodowska - Zawiercie route.
- 2) The following persons were suspended at the request of the main contractor PPMT Gdańsk: the work manager from TOR and work organisation manager from GRA-BUD.
- 3) CRI, as the investor, imposed financial penalties on the main contractor, i.e. PPMT, under the provisions of the agreement and Ibh-105, for the failure to secure the works site and failure to ensure the required supervision.

The Chairman of the Commission did not issue any recommendations to improve safety while the investigation was still in progress.

Based on that investigation, the Commission drew up Report no. PKBWK 04/2024 (18 March 2024), in which it issued the following recommendations:

1. PKP PLK S.A. shall enforce the rules of admission of workers with required authorisations and permits to works and supervision.
2. PKP PLK S.A. shall enforce the rules of admission of outsourced company workers with access cards to perform work on the managed infrastructure.
3. PKP PLK S.A. shall standardise the work of contract managers and supervision inspectors on line investments in terms of the ability to fulfil tasks arising under the provisions of the Construction Law and internal procedures, and shall take appropriate actions based on the said standardisation.

3.3.8 A railway accident that occurred on 12 April 2022 at 09:22 hrs at Poznań Główny station at turnout no. 140 built in track no. 51, at km -0.181 of railway line no. 351 Poznań Główny - Szczecin Główny

Consequences of the occurrence:

- damaged turnout No. 140 and station track no. 51 from the shunting disc Tm60 to the fouling point of turnout no. 140
- derailed and damaged locomotive EU07-1529



Photograph 25 – A general view of the occurrence site (source: own material of PKBWK)



Photograph 26 – Consequences of the occurrence – derailment of locomotive EU07-1529 (source: own material of PKBWK)

An accident involving the switching of the switch in turnout no. 140 installed in station track 51 of Poznań Główny station underneath a passing locomotive EU07-1529 leading train THE 575001, which led to double-tracking and the derailment with two wheelsets of the first bogie and the first wheelset of the second bogie. The second locomotive did not derail because it entered the already switched switch of turnout no. 140.

The Chairman of the State Commission on Rail Accident Investigation Mr. Tadeusz Ryś issued a decision on 14 June 2023 on establishing an investigation into the railway accident at Poznań Główny station at turnout no 140 on track no. 51, km -0.181 of railway line no. 351. The occurrence was reported to the European Union Railway Agency and registered in the database under number PL-10422.

Measures taken by the railway commission following the occurrence:

At the request of the railway commission, Section 22 of the Technical Regulations of Poznań Główny Station received Amendment No. 3 reading: "Due to the necessity of manual release of turnouts no. 140/141 and track No. 51b for train routes from signals G1, G2, J53 to track no. 51 (routes G11 51 ; G22 51 ; J532 51) - the place of train head stop shall be indicator "W4" positioned on the left side of track no. 51 ahead of turnouts no. 140/141. The continuation of train movement (from indicator W4) may take place on the permissive aspect on signal M51, and shunting movement on aspect "Ms2 shunting allowed" displayed on the shunting disc Tm60 positioned on the right side of track 51 (at indicator W4).

The Chairman of the Commission did not issue any recommendations to improve safety while the investigation was still in progress.

Additional comments made by the Commission

- 1) Following P4 maintenance of locomotive EU07-1529, the railway carrier PKP Cargo did not implement order No. DBK-550/R03/KB/12 of the President of the Rail Transport Office of 30 May 2012 addressed to railway carriers concerning the obligation to install foreground image recording devices - digital cameras or video recorders in newly built and in-service rail vehicles in accordance with PKBWK recommendation No. PKBWK-076-305/RL/r/11 of 22 November 2011.
- 2) In the plans of Poznań Główny station (rail traffic control and road traffic), the location of indicator W4 is not in line with the terrain.
- 3) The schematic plan of the station (road) is drawn to the wrong scale.

Based on that investigation, the Commission drew up Report no. PKBWK 05/2024 (10 June 2024), in which it issued the following recommendations:

1. PKP PLK S.A. ensure safe organisation of traffic for trains terminating on track 51 at Poznań Główny station, PKP PLK S.A. IZ Poznań shall install an intermediate signal instead of the Tm60 shield to change the location of the route place.
2. Pending implementation of Recommendation 1, PKP PLK S.A. IZ Poznań shall clarify in Section 22. "Other provisions not covered by the preceding provisions" in Paragraph 12 of Technical Regulations of Poznań station the detailed rules of conduct in the event of the need to use the special command "ZW" deviating from the provisions contained in §46(4) and (8) of Instruction Ir-1 and in §13(4) and §14(4) of Instruction Ie-20.
3. PKP PLK S.A., together with the system supplier, shall adapt the computer system at Poznań Główny station - special command "ZW", specifying the required time delay in accordance with applicable Technical Standards for Rail Traffic Control Devices and Operator Manual for Poznań Railway Node E-20.
4. PKP PLK S.A. IZ Poznań shall bring the road plan into line with the actual situation - (the location of indicator W4 at track 51).
5. Authorised railway infrastructure managers and infrastructure managers operating under a safety certificate and exempt from the requirement to obtain a safety authorisation shall verify, at posts equipped with computer rail traffic control equipment, the advisability of using the special order to release a route on an ad hoc basis (e.g. ZW; PZA; ...) with regard to compliance with the rules on the safety of operation of rail traffic.

6. PKP CARGO S.A. shall implement order no. DBK-550/R-03/KB/12 of the President of the Rail Transport Office of 30 May 2012 addressed to railway carriers on the obligation to install recording devices - digital cameras or video recorders in newly built and operating rail vehicles.
7. PKP PLK S.A. shall supplement the Hazard Record by adding another hazard: "Clauses on traffic organisation in the Technical Regulations of the traffic service station that are incompatible with applicable regulations".
8. PKP PLK S.A. IZ Poznań shall take actions to rectify the irregularities referred to in Point 3.4 of Chapter IV, i.e. to improve the ergonomics of the workstations of signallers at the CTC signal box of Poznań Główny station.
9. Authorised infrastructure managers shall include in the Hazard Record the hazard associated with inappropriate ergonomics of signaller duty stations. In addition, they shall verify the ergonomics of signaller duty stations where several duty stations are located in close proximity in the same room; and if any irregularities are detected, they shall take actions to improve the working conditions of signallers.

3.3.9 A railway accident that occurred on 24 August 2023 at 12:05 hrs at Skierniewice station, at turnout no. 13, km 64.282 of railway line no. 1 Warszawa Zachodnia - Katowice

Consequences of the occurrence:

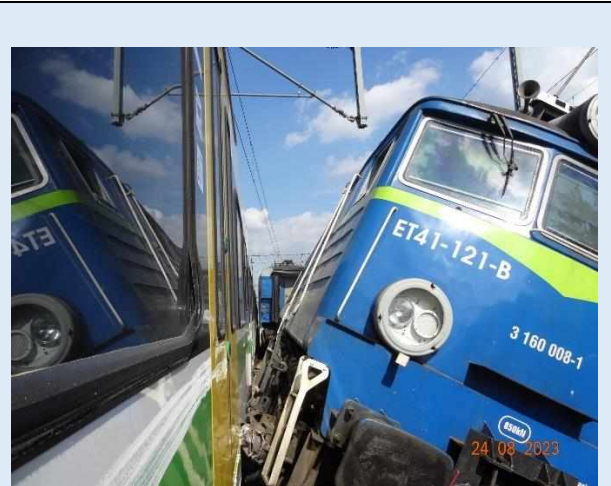
- all bogies of the first section and one bogie of the second section of the ET41-121 derailed, and section B and the gangway between the locomotive sections were damaged
- elements of the structure and body skin of electric multiple unit ER160-22 were damaged
- the drive of turnout no. 13 and turnout sleepers were damaged



Photograph 27 – A general view of the occurrence site (source: materials provided by the railway commission)



Photograph 28 – A view from the front view camera of train no. 524009 at the time of the collision (source: materials provided by the railway commission)



Photograph 29 – Consequences of the occurrence (materials provided by the railway commission)

Accident - a collision of a freight train and a passenger train.

Freight train no. 524009 of the railway carrier PKP CARGO S.A. travelling from Nidzica to Sitkówka Nowiny, led by locomotive ET41-121, was had been moving on main station track two of Skierniewice station, which is an extension of plain line track no. 2 (left) of the Radziwiłłów Mazowiecki - Skierniewice route. The route for that train had been prepared and locked onto track three, and the permissive aspect S13 was shown on the signal J2^{1/2/3/4/m}. When the head of that train, moving from track two onto track one via turnout no. 11, reached the fouling point of turnout no. 13 at km 64.282, a lateral collision occurred with passenger train no. 93965 led by EMU ER160-22 of the railway carrier "Koleje Mazowieckie - KM" Sp. z o.o. travelling from Warszawa Wschodnia to Skierniewice. The passenger train had been moving on track one, which is an extension of plain line track no. 1 (right) of the Radziwiłłów Mazowiecki - Skierniewice route, and disregarded the signal J1^{1/2/3/m} which was showing aspect S1 "Stop". The passenger train overtook the freight train by entering turnout no. 13 directly from the obtuse crossing side onto the route of the freight train, and ran through that turnout. The head of the ET41-121 locomotive at turnout no. 13 ran into the left side of the first unit of the passing passenger train. The head of train no. 524009 stopped at km 64.306, and the head of train No. 93965 stopped at km 64.374.

The Chairman of the State Commission on Rail Accident Investigation Mr. Tadeusz Ryś issued a decision on 1 September 2023 on establishing an investigation into the railway accident at Skierniewice station at turnout no 13, km 64.282 of railway line no. 1.

The occurrence was reported to the European Union Railway Agency and registered in the database under number PL-10444.

Measures taken since the occurrence:

The Chairman of the Commission did not issue any recommendations to improve safety while the

investigation was still in progress.

Based on that investigation, the Commission drew up Report no. PKBWK 06/2024 (1 August 2024), in which it issued the following recommendations:

1. Certified railway carriers shall incorporate a train driver improvement programme in their safety management systems. Addressed to train drivers who have less than 5 years of work experience, the programme shall include at least:
 - a) obligatory supervised instruction rides with all employee who are starting their careers as train drivers, at a rate of at least one ride per month for a period of one year, applicable to each train driver from the moment they obtain their train driver's certificate,
 - b) ad hoc training, including an increased number of hours of simulator training,
 - c) special assistance to that group of employees in terms of behavioural processes such as maintaining concentration, selecting stimuli, dividing attention, and the ability to work under pressure and under stress.
2. Licensed railway carriers shall include the topics related to the rules on the use of mobile phones and other mobile devices while driving and shunting in their preparatory courses, training and periodic instruction briefings for train drivers, as recommended by the Chairman of PKBWK (Report no. PKBWK/1/2012 Recommendation No. 3).
3. Certified railway carriers and entities in charge of maintenance shall identify within their management systems the hazard of recurrence of the causes of failure for a given vehicle type, and shall carry out a risk assessment for that risk. If the hazard is identified, they shall continue to:
 - a) apply corrective measures to eliminate the safety hazard,
 - b) report recurrent failures of vehicles of a given type to the rolling stock manufacturer so that the latter could verify the failure rate in relation to other vehicles of the type, monitor the performance of potentially defective components and take actions to ensure the safe operation of these vehicles, e.g. by repairing/replacing the defective component in all vehicles of the type.
4. PKP PLK S.A. IZ Łódź shall install repeater signals ahead of the intermediate signal J111/2/3/m to provide clear and uninterrupted visibility of the aspects shown by that signal.
5. PKP PLK S.A. shall cover the following topics in their periodic and ad hoc instruction briefings for personnel directly involved in the operation of railway traffic:
 - a) a good practice for their signal box personnel to send an additional notification by radio to the drivers of rail vehicles concerning changes in the traffic organisation applicable to a given train within a station, in particular concerning an unscheduled stop at a station or en route to let other trains pass as recommended by the Chairman of PKBWK in relevant reports (No. PKBWK/03/2018 and No. PKBWK/02/2022),
 - b) formulation of radiotelegrams in accordance with Instruction Ir-5 (R-12).

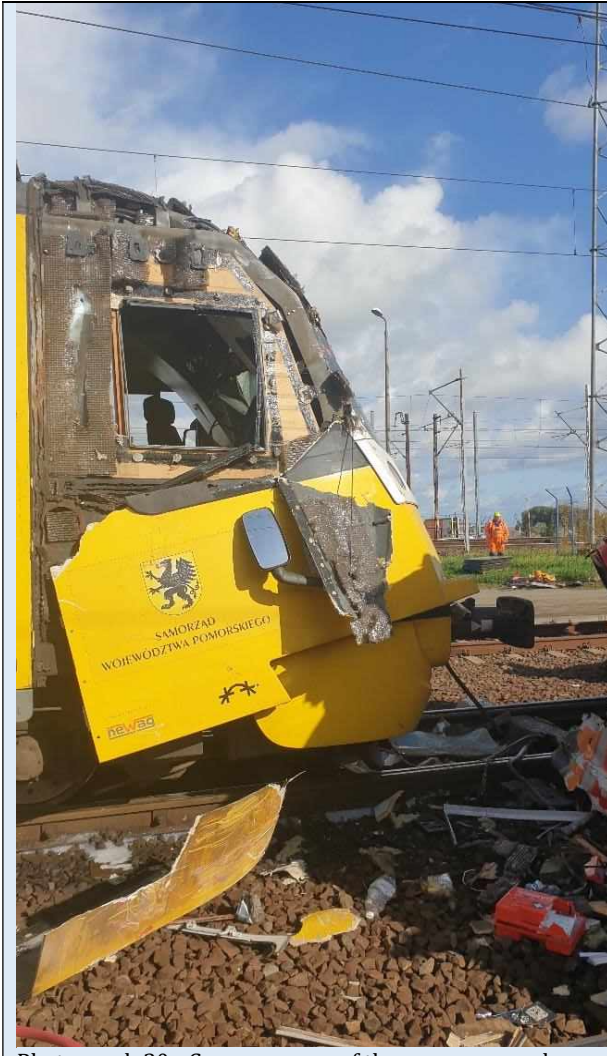
3.3.10 A railway accident that occurred on 5 October 2023 at 07:00 hrs at Gdynia Główna station, track no. 5, turnout no. 45, km 21.522 of railway line no. 202 Gdańsk Główny - Stargard

Consequences of the occurrence:

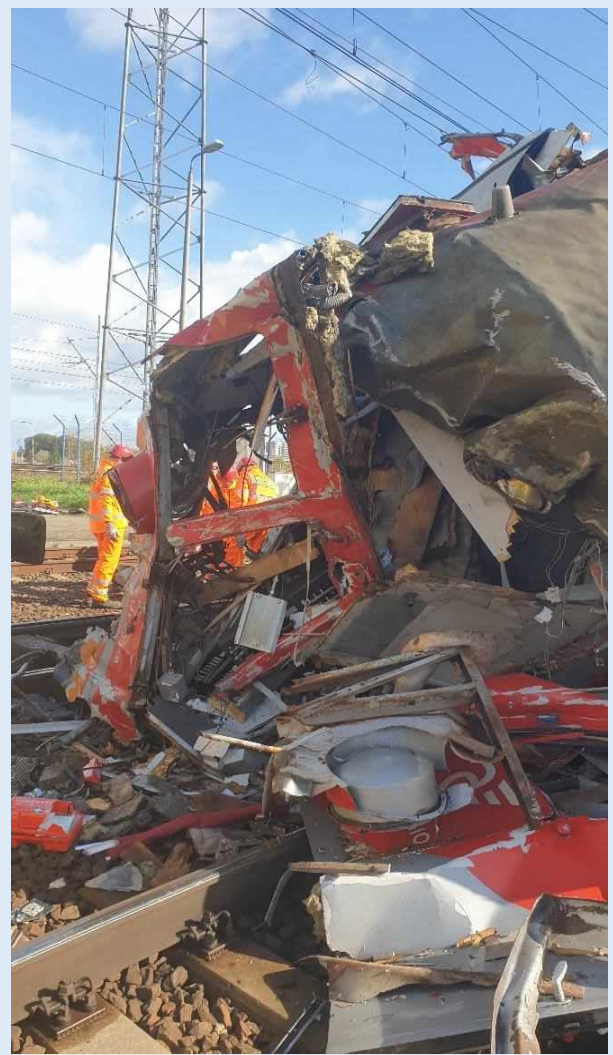
- the driver of train ROJ 50673 sustained serious injuries
- three employees of the carrier PLREGIO S.A. sustained injuries
- no passengers on train ROJ 50673 sustained injuries
- EMU EN57-1248 - section (Ra) was completely destroyed and derailed, and section (S) was damaged
- railbus SA138-004 - cabin (A) and head of the vehicle were crushed, a change in the geometry of the vehicle body (the body was "deformed")
- signalling equipment and overhead contact line (two suspension holders) at Gdynia Główna station were damaged



Photograph 31 – A general view of the occurrence site (source: materials provided by the railway commission)



Photograph 30 - Consequences of the occurrence - damage to SA138-004 (source: own material of PKBWK)



Photograph 32- Consequences of the occurrence - damage to EMU EN57-1248 (source: own material of PKBWK)

Serious accident - train collision.

Passenger train ROJ 50673 of the carrier POLREGIO S.A. travelling from Malbork to Gdynia Chylonia departed from track four towards plain line track no. 1 to Gdynia Chylonia station. The train was travelling along a locked route on the aspect S10a "*Proceed with speed limit 60 km/h, then maximum speed allowed*" displayed by the exit signal ^{K42/4/m}. At the same time, railbus SA138-004 of the carrier POLREGIO S.A was leaving a fuel depot on a shunting run. The railbus was travelling from track 404 to track 15a on a locked route, the end of which was a at a shunt signal Tm30 displaying the aspect Ms1 "*Shunting prohibited*". The railbus disregarded the signal at which it was supposed to stop, and subsequently entered turnout no. 64, ran through the switch and entered the route of train ROJ 50673 in motion. That resulted in a head-on collision of the two vehicles at turnout no. 45 on track 5.

The Chairman of the State Commission on Rail Accident Investigation Mr. Tadeusz Ryś issued a decision on 6 October 2023 on establishing an investigation into the railway accident at Gdynia Główna station, track no. 5, km 21.522 of railway line no. 202.

The occurrence was reported to the European Union Railway Agency and registered in the database under number PL-10456.

As of August 2024, the investigation was in the phase of clarifying the contributing factors and formulating the recommendations. The investigation report is now at the final stage of development.

4. Analysis of occurrences reported to PKBWK in 2023

Increase in the total number of occurrences

In 2022, the total number of occurrences reported to the Commission by relevant infrastructure managers and railway siding users increased by 5.9% compared to 2021, of which:

- there were no serious accidents investigated by the Commission (no serious railway accidents were reported in 2022 either),
- there was an increase in the number of accidents - by 4.0% (from 651 in 2022 to 677 in 2023),
- the number of incidents increased by 6.6% (from 1,643 in 2022 to 1,752 in 2023).

An analysis of occurrences reported to PKBWK in 2023 shows that the total number of railway occurrences at railway sidings also increased, by 6.7%, compared to 2022.

In 2023, there were 180 occurrences, of which 146 were classified as railway accidents and 34 as railway incidents, whereas in 2021, there were 168 railway occurrences, of which 128 were classified as railway accidents and 40 as railway incidents.

The breakdown of occurrences in 2023 compared to 2022 by category (including immediate cause qualification) is shown on page 99 of Annex "C" to this report.

Accidents

An increase in the number of accidents occurred in 15 categories*), i.e. B01 – 1; B03 – 41; B04 – 36; B06 – 1; B07 – 5; B09 – 50; B16 – 4; B17 – 24; B21 – 131; B23 – 13; B32 – 6; B33 – 13; B35 – 18; B39 – 2, and in an undetermined category – 2.

A slight decrease in the number of accidents compared to the previous year was recorded in 10 categories*) (out of all 40 Category B occurrences), i.e. B00 – 19; B08 – 12; B10 – 6; B13 – 34; B15 – 12; B18 – 5;

B19 – 11; B20 – 30; B24 – 3; B34 – 167.

The largest increase in the number of accidents was recorded in the following categories:

*) occurrence category (A, B, C) - designation in accordance with the immediate cause qualification contained in the Regulation of the Minister of Infrastructure and Construction of 16 March 2016 on serious accidents, accidents and incidents in rail transport (Journal of Laws 2016, item 369)

B21 – up by 25 – there were 106 occurrences at Category D level crossings in 2022, compared to 131 in 2023;

B17 – up by 14 – improper loading, unloading, irregularities in securing the cargo or other irregularities in cargo operations, or improper formation of a train or shunting consist – 10 occurrences in 2022, compared to 24 in 2023;

B35 – up by 9 – occurrences to persons involving a rail vehicle in motion (jumping in/falling out of a train/rail vehicle, strong approach or sudden braking of a railway vehicle) - 9 occurrences in 2022, compared to 18 in 2023;

B03 – up by 8 – dispatching, accepting or driving of a rail vehicle on an incorrectly set/ unsecured route, or improper operation of signalling equipment – 33 occurrences in 2022, compared to 41 in 2023.

Incidents

Compared to the previous year, there was a 6.6% increase (up by 109), in the number of incidents reported in 2023 (1,643 incidents in 2022, compared to 1,752 incidents in 2023).

An increase in the number of incidents was recorded in 9 categories*) (out of all 27 Category C occurrences), i.e. C42 – 2; C44 – 129; C50 – 24; C51 – 58; C55 – 27; C59 – 4; C60 – 60; C64 – 721; C65 – 81.

A slight decrease in the number of incidents was recorded in 16 categories*), i.e. C43 – 76; C45 – 11; C46 – 1; C47 – 5; C48 – 2; C52 – 3; C53 – 31; C54 – 177; C57 – 2; C62 – 13; C66 – 82; C68 – 215; C69 – 28, with no occurrences reported (complete decrease) in the following categories: C41 – 0; C49 – 0; C61 – 0; C67 – 0.

The largest increase in the number of incidents was recorded in the following categories:

- **C64** - from 607 in 2022 to 721 in 2023 (+114) – in the category: malicious, hooligan or reckless offences (e.g. throwing stones at a train, stealing cargo from a train or shunting consist in motion, placing an obstruction on the track, vandalising power, communication or rail traffic control equipment or track surface, and interfering with such equipment), with no casualties or adverse consequences for property or the environment, posing a risk to passengers or train staff;
- **C65** – from 30 in 2022 to 81 in 2023 (+51) – occurrences to persons involving a rail vehicle in motion (crossing the tracks at or outside level crossings and pedestrian passages, jumping in/falling out of a train/rail vehicle, being hit by rolling stock in motion, strong approach or sudden braking of a rail vehicle), without casualties or negative consequences for property or the environment;

- **C51** - from 29 in 2022 to 58 in 2023 (+29) - damage to the surface, bridge or overpass, overhead contact line, including also improper execution of works, e.g. improper unloading of materials, leaving materials and equipment (including road machinery) on the track or within the clearance of a rail vehicle;
- **C60** – from 35 in 2022 to 60 in 2023 (+25) – a rail vehicle running over an obstacle (e.g. a brake skid, luggage trolley, postal cart, etc.) without derailment or casualties;
- **C44** - from 118 in 2022 to 129 in 2023 (+11) - failure of a rail vehicle to stop before a "Stop" signal or where it was supposed to stop, or starting a rail vehicle without the required authorisation.

An analysis of accidents (by type of occurrence) shows that there was an increase in the number of accidents on railway lines and railway sidings (including narrow-gauge lines):

- **collisions** – up from 82 in 2022 to 92 in 2023; collisions accounted for 13.6% of all accidents (i.e. 677);
- **derailments** – up from 185 in 2022 to 193 in 2023; derailments accounted for 28.5% of all accidents (i.e. 677);
- **level crossing occurrences** – up from 192 in 2022 to 204 in 2023 (including Categories B18, B19, B20, B21, B22, B31, B32, B33); level crossing occurrences accounted for 30.1% of all accidents (i.e. 677);
- **occurrences to persons involving a rail vehicle in motion** – up from 184 in 2022 to 185 in 2023 (i.e. Categories B34 and B35); these incidents accounted for 27.3% of all accidents (i.e. 677).

Furthermore, the records show a decrease in Category B24 – i.e. **fires** – down from 8 in 2022 to 3 in 2023, accounting for approximately 0.5% of all accidents (i.e. 677).

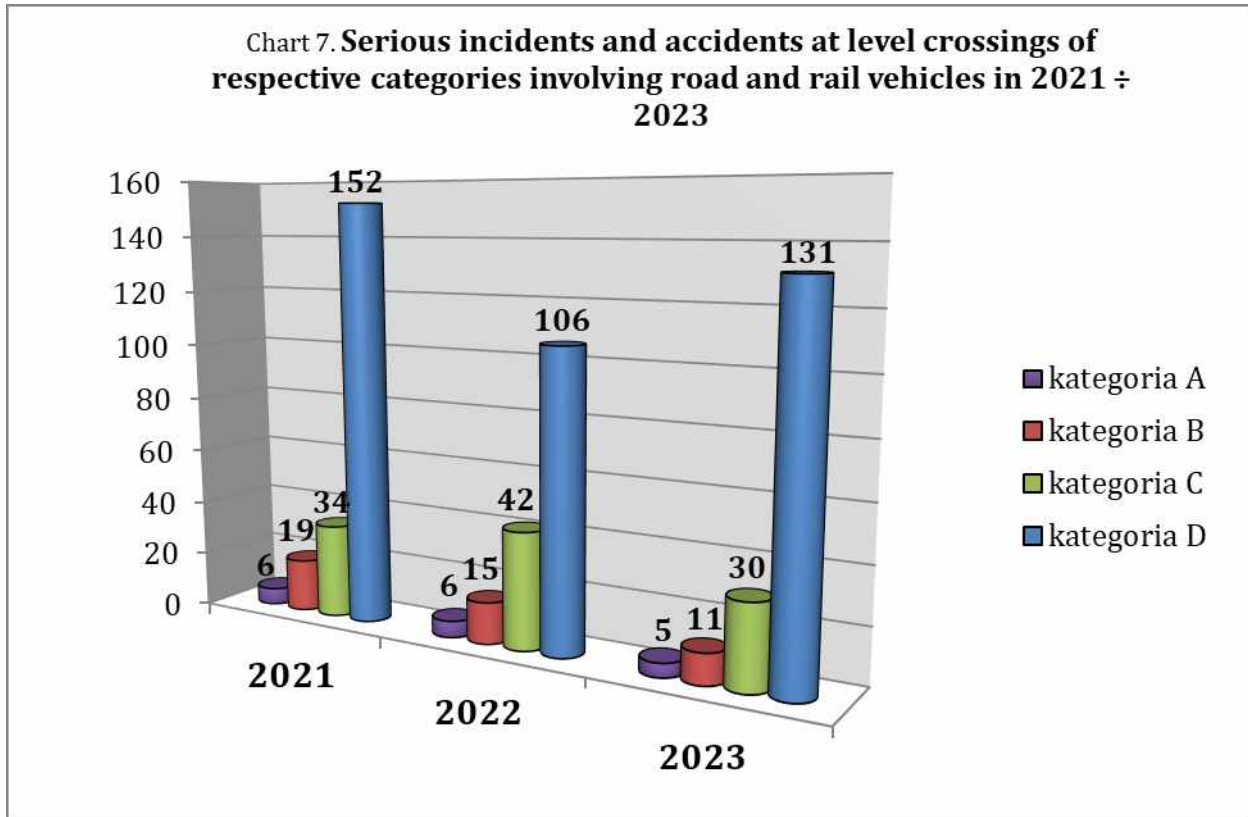
Level crossing accidents

In 2023, the number of occurrences from the overall number of accidents at Category A, B, C, D level crossings **increased by 4.7%, or 8 accidents**, compared to 2022 (169 accidents in 2022, 177 accidents in 2023), of which:

- at Category D level crossings there was **a decrease** by 1 accident,
- at Category B level crossings there was **a decrease** by 4 accidents,
- at Category C level crossings there was **a decrease** by 12 accidents,
- at Category D level crossings there was **an increase** by 25 accidents.

The above statistics include also accidents at Category D level crossings that involved railway siding users (7 accidents) or occurred on narrow-gauge railway lines (5 accidents).

A comparative summary of serious accidents and accidents at level crossings of respective categories involving road and rail vehicles in 2021 ÷ 2023 is shown in the chart below.



As previously, the main causes of occurrences at level crossings include, in particular:

- failure to comply with the prohibition of entry to a level crossing beyond a road signal displaying the prohibition in the form of two alternately flashing red lights,
- failure to stop ahead of a "Stop" sign, and failure by drivers of road vehicles to exercise due care,
- passing under closing barriers,
- bypassing semi-barriers,
- absence of the required visibility triangle,
- failure to take special precautions at a level crossing with closed barriers and properly functioning traffic lights, and failure of the driver of a road vehicle to react to the sound signal "Attention" given by the train driver,
- a level crossing being blocked by road vehicles that entering on the tracks without the possibility of exiting,
- failure to adjust the speed to the prevailing road conditions, leading to either running into the side of a train at a Cat. D level crossing or barriers at a Cat. B level crossing,
- failure to observe road signs and other traffic signals,

- inappropriate behaviour when a road vehicle is immobilised on the tracks,
- failure of the driver of a road vehicle to react to the "Attention" signals given by the train driver when traversing a level crossing, resulting in entering the level crossing in front of the oncoming train,
- road vehicle failing to stop before an activated road signal with sound signals prohibiting entry, resulting in entry directly in front of an oncoming train at a properly secured and signalised Category C level crossing,
- a road vehicle entering a level crossing despite activated road signals - failure by the driver to exercise caution at a Category B crossing and stopping the road vehicle inside the level crossing area at the barrier closing the exit,
- a road vehicle failing to stop before road signals despite not being able to continue due to traffic congestion and being stuck at a level crossing after the barriers are closed,
- a vehicle failing to stop before a road signal prohibiting entry onto a level crossing; a road vehicle failing to stop before a level crossing despite the road signals warning of an oncoming train and the start of the closing of the barriers,

According to records kept by PKBWK, there were 36 railway occurrences in which a road vehicle at a crossing drove into the side of a railway vehicle being part of the train formation present at that crossing.

The main causes of these accidents at Category A level crossings include:

- the driver of a passenger car at a Category A level crossing without barriers (guarded by an employee of the carrier) driving directly into the front of a passing train,
- the driver of a road vehicle failing to exercise caution when traversing a level crossing, failing to give way to the oncoming rail vehicle,
- premature opening of crossing barriers by a point operator training to become a signaller,
- a rail vehicle running into a road vehicle at a Category A level crossing, with the crossing barriers not closed by the signaller,
- a road vehicle running into the side of a train at a level crossing signalised from the road side by means of B20 STOP road signs and "lights out of order"/"barriers out of order" boards.

At Category B level crossings, one can still observe a **mass phenomenon of road vehicles entering** the crossings (when the barriers are being closed) and consequently being confined between the barriers. An analysis of the *Final Findings Reports* (PUK) submitted by the railway commissions shows that more than **720** occurrences (incidents) were recorded at level crossings in 2023, including failure of a road vehicle to stop ahead of a closed barrier (half-barrier) and damage either to the barrier or road signals (i.e. 82 Category C66 incidents), and malicious, hooligan or

reckless offences, without any casualties or adverse consequences for property or the environment, endangering passengers or train staff – vehicles confined between the barriers (i.e. 638 category C64 incidents). In 2023, there was an increase in Category C64 incidents (from 607 in 2022 to 721 in 2023), and a decrease in Category C66 incidents (from 87 in 2022 to 82 in 2023). It should be noted that the incidents concerned did not involve collisions between road vehicles and rail vehicles.

The high number of such incidents (Categories C64 and C66) is indicative of the reckless behaviour of road vehicle drivers or their failure to exercise caution when approaching and traversing level crossings, as well as their ignorance of the provisions of Article 28 of the Road Traffic Code and the related implementing regulations under §98(5) of *Regulation of the Ministers of Infrastructure and of the Interior and Administration of 31 July 2002 on road signs and signals (as amended)*.

Over the past three years, the number of Category C64 incidents (in particular at Category B level crossings) has been on the rise.

Circumstances and causes of incidents should be thoroughly analysed by railway commissions and railway infrastructure managers, and appropriate measures should be taken to prevent future occurrences.

On a positive note, there was a decrease in the number of accidents at Category B level crossings (15 accidents in 2022 and 11 in 2023). Nevertheless, the continuing upward trend in Category C64 incidents in the past three years (see Chart 6) does not bode well for the future.

In 2023, there were 30 accidents at Category C level crossings, compared to 42 in 2022, a decrease by 28.6% (-12).

There has been a significant increase in the number of railway accidents at Category D level crossings (from 106 in 2022 to 131 in 2023), which should be recognised as a negative phenomenon. Drivers of road vehicles have a significant impact on the number and incidence of occurrences at Category B, C and D level crossings.

In 2023, there were 131 accidents at Category D level crossings, compared to 106 in 2022, an increase by 23.5% (+25).

Overall, 177 railway accidents occurred at level crossings in 2023, accounting for 26.1% of the total number of accidents that occurred in 2023 (677).

There were 20 fatalities and 21 serious injuries in accidents at level crossings in 2023, compared to 31 fatalities and 18 serious injuries in 2022. Furthermore, at level crossings and passages with pedestrian traffic in 2023, overall in Categories B18, B19, B20, B21, B22 and B31, B32 and B33, 39 people killed and 24 seriously injured, compared to 2022, when 42 people were killed and 20 seriously injured.

Safety is improved by the implementation and improvement of additional signage (applied by the manager PKP PLK S.A.) of level crossings/passages **with stickers showing a unique identification number and an emergency telephone number, used by railway infrastructure managers** - the so-called "Yellow Sticker" project. The additional signage enables road users who are either involved in or witness an emergency or occurrence to contact the emergency services quickly. The database of unique identification numbers has been integrated into the information system used by the operators of the 112 emergency number.

In the event of an emergency or occurrence at a level crossing, after dialling 112 (for accidents or imminent accidents) or the emergency number (for emergencies), the reporting person provides the unique identification number of the level crossing from the yellow sticker.

The information allows the 112 operator or railway employee to determine the exact location of the level crossing, which reduces the response time in the event of an emergency. How effectively the project will be implemented will depend on reaching as many users of level crossings and pedestrian passages as possible with the information about the "Yellow Sticker".

Based on information provided by PKP Polskie Linie Kolejowe S.A.:

Between 1 June 2018 and 31 December 2023, 112 operators received 33,497 calls regarding potential hazards at level crossings and in railway areas.

In 2023, a total of 7,963 calls under the "yellow Sticker" project were recorded. Emergency calls to 112 enabled the following:

- 499 cases where speed limits were introduced to ensure the safety of passengers and users of level crossings,
- 275 cases where train operations on railway lines were suspended.

In view of the impact of accidents and incidents at level crossings, it is necessary to accelerate the implementation of projects for occurrence monitoring and analysis systems to improve safety at category B, C and D level crossings, including ones that determine compliance with applicable road traffic regulations.

Furthermore, prevention of railway accidents in 2023 involved also the use the "Alarm" signal transmitted in the Radio-Stop system.

Overall, PKP PLK S.A. recorded 856 instances of transmission of the "Alarm" signal in 2023, of which:

- 679 were transmitted from outside the railway system (unjustified);
- 180 were transmitted within the railway system, of which:
 - 70 were legitimate - preventing railway incidents,

- 110 were unjustified - transmitted by a train driver, signaller, crossing keeper or other personnel.

Compared to 2022, the number of uses of the "Alarm" signal in 2023 increased by 27.0% (from 674 to 856 cases), and the number of legitimate uses rose by 20.7% (up from 58 in 2022 to 70 in 2023). Out of a total of 856 cases of use of the "Alarm" signal, unjustified use from outside the railway system accounted for 79.3% (i.e. 679 cases).

The following personnel groups used the "Alarm" signal:

- train drivers – considered justified in 41 cases, and unjustified in 73 cases,
- signallers – considered justified in 20 cases, and unjustified in 9 cases,
- crossing keepers – considered justified in 6 cases, and unjustified in 1 case.

Cases of unjustified use of the "Alarm" signal were most frequently observed among the professional group of train drivers - i.e. 73 cases, followed by signallers - 9 cases, and crossing keepers - 1 case. The remaining 27 cases of unjustified use occurred during maintenance work.

The largest number of cases of unjustified transmission of the "Alarm" signal (616 cases) was recorded in areas with large human settlements and high railway network density, where signal interference affects the largest number of railway system users. The highest activity in terms of transmitted "Alarm" signals in 2023 was recorded by PKP PLK S.A. Railway Line Plants in: Warsaw (115), Gdynia (103), Tarnowskie Góry (50), Szczecin (45) and Krakow (43), with the number being significantly higher in the area of PKP PLK ZLK in Warsaw (115 unjustified uses of the "Alarm" signal were recorded).

Casualties in occurrences

In 2023, compared to 2022, the number of fatalities in railway incidents decreased by 4.2 %, while the number of serious injuries increased by 25.5 % (see Table 2). Among the casualties (fatalities and serious injuries), the vast majority consisted of people crossing the tracks in prohibited places or at level passages, people hit by rail vehicles, people jumping on and off rail vehicles in motion, and users of level crossings. There was a significant decrease in the number of injuries from 130 in 2022 to 106 in 2023.

Table 3. Casualties in occurrences in 2023

Casualty categories in incidents in 2023	Fatalities	Serious injuries	Injuries
a) passengers	1	2	22
b) personnel, including at subcontractors	3	5	12
c) level crossing or passage users	39	24	43
d) persons not authorised to stay in a railway area	115	29	27
e) other	2	4	2

Total	160	64	106
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5. Safety recommendations issued by the Commission in its annual reports up to 2023 pursuant to Article 28l(6) of the Rail Transport Act of 28 March 2003

5.1 Recommendations issued in 2023 and published in September 2023 in the PKBWK Annual Report 2022

Pursuant to Article 28l(6) of the Rail Transport Act, the Commission issued the following safety recommendations in 2023.

As it transpires from "**Information on the implementation of PKBWK recommendations in 2023**" (provided in UTK letter No. DPN-WDZK.464.14.2024.1.MF of 26 April 2024), the President of UTK forwarded the revised recommendations to railway market entities in UTK letter –No. DPN-WDZK.464.22.2022.2.KG of 18 December 2023, and analysed the information on their implementation.

The content of the PKBWK recommendations amended and forwarded to the railway market entities by the President of the UTK is included in the summary "Recommendations issued by PKBWK in 2023 included in the Annual Report 2022" below.

Recommendations issued by PKBWK in 2023 included in the Annual Report 2022	
The content of the recommendations concerning all entities related railway transport, issued by PKBWK in its Annual Report 2022 and submitted to the President of UTK in accordance with Article 281(8) of the Rail Transport Act of 28 March 2003	The content of the Commission recommendations as amended by the President of UTK and forwarded for implementation to the following entities: certified railway carriers, authorised infrastructure managers, railway siding users, operators of narrow-gauge railways and managers of railway networks that are functionally separate from the Union railway system and intended only for voivodeship or local transport (operating on the basis of safety certificates).
1. PKP PLK S.A. and other railway infrastructure managers shall use their analyses of railway line sections where there are cases of incursions of forest animals on the track directly in front of an oncoming train to take measures, especially in forested areas, to deter forest animals or prevent them, by means of fencing, from being run over by traction vehicles,	Annual Report for 2022_1 PKP Polskie Linie Kolejowe S.A. and other authorised railway infrastructure managers and infrastructure managers exempt from the obligation to obtain a safety authorisation, authorised to operate on the basis of a safety certificate, shall use their analyses of railway line sections where there are cases of incursions of forest animals on the track directly in front of an oncoming train to take measures, especially in forested areas, to deter forest animals or prevent them, by means of fencing, from being run over by traction vehicles.
2. Infrastructure managers, railway carriers, railway siding users, operators of narrow-gauge railways and entities exempt from the obligation to obtain a safety authorisation but authorised to operate on the basis of a safety certificate shall provide periodic training for members of railway commissions in issues related investigating railway occurrences.	Annual Report 2022_2 Infrastructure managers, railway carriers, railway siding users, operators of narrow-gauge railways and entities exempt from the obligation to obtain a safety authorisation but authorised to operate on the basis of a safety certificate shall provide periodic training for members of railway commissions in issues related investigating railway occurrences.
3. PKP Polskie Linie Kolejowe S.A. and other infrastructure managers shall revise their existing regulations concerning the phase of restoring traffic after automatic transmission of the emergency alarm signal (radio-stop). In particular, they shall develop and implement a uniform form of the order to restore traffic issued to the traction teams (railway carriers) by the organiser of train traffic in the area where the Alarm was announced. Furthermore, they shall examine the suitability of the current location of the W28 indicator.	Annual Report 2022_3 PKP Polskie Linie Kolejowe S.A. and other authorised railway infrastructure managers and infrastructure managers exempt from the obligation to obtain a safety authorisation, authorised to operate on the basis of a safety certificate, shall revise their existing regulations concerning the phase of restoring traffic after automatic transmission of the emergency alarm signal (radio-stop). In particular, they shall develop and implement a uniform form of the order to restore traffic issued to the traction teams (railway carriers) by the organiser of train traffic in the area where the Alarm was announced. Furthermore, they shall examine the suitability of the current location of the

	W28 indicator.
4. Railway carriers, infrastructure managers with powered rail vehicles, railway siding users, operators of narrow-gauge railways and entities exempt from the obligation to obtain a safety authorisation, authorised to operate on the basis of a safety certificate, shall regulate (in their internal instructions/rules) and implement the prohibition of contacting the driver by mobile phone while driving except in emergency situations (communication failures) where it is necessary to inform the driver of situations that pose a risk to the safety of rail traffic.	Annual Report 2022_4 Railway carriers, infrastructure managers with powered rail vehicles, railway siding users, operators of narrow-gauge railways and entities exempt from the obligation to obtain a safety authorisation, authorised to operate on the basis of a safety certificate, shall regulate (in their internal instructions/rules) and implement the prohibition of contacting the driver by mobile phone while driving except in emergency situations (communication failures) where it is necessary to inform the driver of situations that pose a risk to the safety of rail traffic.
5. PKP Polskie Linie Kolejowe S.A. and other railway infrastructure managers shall analyse railway line sections where there have been cases of people being run over when entering the tracks in unsuitable places directly in front of an oncoming train, and shall take appropriate measures to reduce the number of such cases (e.g. by legalising pedestrian passages with appropriate signage, railway police patrols, fencing, monitoring system (CCTV)).	Annual Report 2022_5 PKP Polskie Linie Kolejowe S.A. and other authorised railway infrastructure managers and infrastructure managers exempt from the obligation to obtain a safety authorisation, authorised to operate on the basis of a safety certificate, shall analyse railway line sections where there have been cases of people being run over when entering the tracks in unsuitable places directly in front of an oncoming train, and shall take appropriate measures to reduce the number of such cases (e.g. by legalising pedestrian passages with appropriate signage, railway police patrols, fencing, monitoring system (CCTV)). Railway commissions, when conducting investigations following Cat. B34 occurrences, shall carry out similar analyses for the locations concerned and shall include the aforementioned preventive measures in their conclusions.

5.2 Recommendations issued by the Commission in 2024 included in the Annual Report 2023

Pursuant to Article 28l(6) of the Rail Transport Act of 28 March 2003, the Commission has issued the following safety recommendations:

- 1) The Minister of Infrastructure shall amend the national regulations (§21 of the Regulation on general conditions for rail traffic operation and signalling) restoring two-person traction staffing for trains travelling at speeds above 130 km/h where the railway line or rail vehicle is not equipped with ETCS devices.

The present amendment, implemented under §21 of the Regulation of the Minister of Infrastructure of 20 October 2023 amending the Regulation on general conditions for rail traffic operation and signalling, in practice poses a risk to railway safety. Examples of occurrences that endangered the safety of rail traffic were presented and discussed at the a meeting of the Safety Monitoring Team at the Office of Rail Transport on 29 August 2024.

- 2) The infrastructure manager PKP PLK S.A. shall analyse cases of vehicles stopping between the barriers that occurred in 2023 at Category B level crossings. If the number of occurrences at a given level crossing exceeds **5 per year**, measures must be taken to reduce the risk of occurrences, in particular:
 - a) conduct a detailed analysis of why vehicles tend to remain within the zone during the passage of a train,
 - b) in cooperation with road managers (and other stakeholders), develop measures to reduce the risk of occurrences at level crossings by changing the organisation of road traffic, introducing additional traffic restrictions for road vehicles, introducing speed limits for trains,
 - c) eliminate exit barriers - as recommended by PKBWK in the Annual Report 2018,
 - d) introduce the rule of switching on/off lights on barrier bars in the open state (vertical) concurrently with showing the prohibition on the road signals.

The above recommendation comes as a result of the need to reduce the number of Category C64 occurrences. The continuing upward trend in repeated incidents at Category B level crossings that pose a threat to the safety of traffic may consequently result in an increase in the number of accidents at those crossings. The elimination of exit barriers in automatic crossing systems at Category B crossings, for solutions with four half-barriers, was included in Recommendation No. 2 issued in 2019 by PKBWK and published in the Annual Report 2019. The recommendation to switch on and off the lights on barrier bars will enable drivers of road vehicles to pay special attention they are entering the crossing, in addition to the prohibition already shown by the road signal (§98(5) of the Regulation of the

Ministers of Infrastructure and of the Interior and Administration of 31 July 2002 on road signs and signals (as amended).

- 3) Railway carriers which recorded Category B04 and C44 railway occurrences shall, within the framework of their safety management systems or internal rules, take measures to prevent SPADs (Signal Passed At Danger), and supplement their recurrent driver training programmes by adding methods of deal with stress, psychological burden, lack of concentration and fatigue as fundamental factors in these categories of occurrences.

The continuing high number of Category (B04 + C44) occurrences requires railway carriers to analyse the causes and circumstances of accidents and incidents in these categories. It must be noted that the number of such occurrences increased by nearly 9% in 2023, compared to 2022. It is therefore necessary to take coordinated action leading to a reduction in their number and negative impact on the operation of the railway system.

- 4) Railway carriers shall supplement their recurrent driver training programmes, including simulator training, by adding the rules of dealing with situations of imminent collision with another rail and/or road vehicle, including in particular the reaction of traction teams and the need for them to leave the cab of the traction vehicle immediately (to a safer location).

Unavoidable accidents involving a traction vehicle running into another rail vehicle, road vehicle or other obstacles, require quick and decisive reactions and specific behaviour from the train driver. The foregoing should become the subject of training (discussion) at recurrent (refresher) training and, in particular, response tests on simulators. How the train driver behaves in such critical situations may prove to be an essential life-saving or health-saving action.

- 5) The infrastructure manager PKP PLK S.A. shall develop guidelines concerning the construction of multi-level crossings to replace level crossings with heavy traffic, taking into account in particular: the speed of the railway line concerned, the traffic ratio and other conditions relating to the location of the crossing.

The increasing number of road vehicles that traverse level crossings should be systematically monitored, taking into account occurrences and existing railway safety risks. Conclusions arising from the monitoring and audits should be taken into account in the development of investment projects, in particular during the planned modernisation of railway lines. The absence of the maximum traffic ratio for Category B level crossings in national rules does not exempt the infrastructure manager from taking measures to eliminate the hazard.

- 6) PKP PLK S.A. and other infrastructure managers shall take measures to detect obstacles at and within level crossings by means of intelligent detection systems that allow informing relevant personnel of the infrastructure manager and railway carrier of the danger where an obstacles is

detected, warning motorists that they are approaching a level crossing, and recording the motorists' behaviour and compliance with road traffic regulations.

This recommendation is based on the need to take effective systemic actions to reduce the number of occurrences (incidents and accidents) at level crossings. Systemic measures addressed to the Company's personnel as well as third parties will provide for increasing the safety level.

- 7) The Minister of Infrastructure shall lay down, in the Regulation *on the technical conditions to be met by crossings of railway lines and sidings with roads, and on their positioning*, the guidelines concerning the construction of multi-level crossings replacing level crossings and the maximum traffic ratio threshold for Category B level crossings that necessitates the construction of a multi-level crossing.

At present, national rules do not provide the maximum traffic ratio for Category B level crossings, allowing to increase traffic volumes at those crossings without any restrictions.

- 8) Railway infrastructure managers together with local government bodies and road managers shall implement a procedure whereby - prior to the revitalisation and modernisation of a railway line, in **order to reduce the number of level crossings and the related distant signals (TOP)** on the line - they will analyse the existing communication routes (roads) so that they could be channelled into a single level crossing, maintaining the 3 km spacing, and possibly replace the decommissioned level crossings with pedestrian routes as E Category pedestrian crossings.

The above objective was included in Recommendation No. 6 (Chapter VI.1b) in Report PKBWK/02/2015.

The Commission issued the above recommendations on the basis of an analysis of the actual number of occurrences and the documents submitted to the Commission by railway market entities.

6. Implementation of the recommendations issued by PKBWK in 2023 (according to information provided by the President of the Office of Rail Transport)

On 29 April 2024, the Commission was provided by the President of the Office of Rail Transport, hereinafter referred to as "UTK", with information on the implementation of the recommendations issued by the Commission in 2023.

In 2022, PKBWK submitted to the President of UTK five reports on investigations completed in 2023 concerning railway occurrences that had taken place in 2019, 2022 and 2023, and the Annual Report 2022 on the activities of the State Commission on Railway Accident Investigation (with recommendations):

- 1) REPORT No. PKBWK 01/2023 on the investigation of a railway incident that occurred on 16 October 2019 at 13:51 hrs at Leszczyzny station, at km 31.738 of railway line No. 140 Katowice Ligota - Nędza;
- 2) REPORT No. PKBWK 02/2023 on the investigation of a railway accident that occurred on 20 June 2022 at 12:55 hrs at the junction post Regalica, railway line No. 351 Poznań Główny POD - Szczecin Główny, at km 204.079;
- 3) REPORT No. PKBWK 03/2023 on the investigation of a railway accident that occurred on 3 November 2022 at 18:45 hrs at the passenger stop Krzcięcice, track no. 2, at km 244.636 of railway line no. 8 Warszawa Zachodnia - Kraków Główny;
- 4) REPORT No. PKBWK 04/2023 on the investigation of a railway accident that occurred on 12 December 2022 at 02:35 hrs on the Koziegłowy - Poznań Piątkowo route, track no. 2, km 11.788 of railway line no. 395 Zieliniec - Kiekrz, Category C level crossing;
- 5) REPORT No. PKBWK 05/2023 on the investigation of a railway accident that occurred on 20 February 2023 at 18:11 hrs on the Chałupki - Krzyżanowice route, track no. 2, Cat. B level crossing, at km 47.973 of railway line no. 151 Kędzierzyn-Koźle - Chałupki;
- 6) Annual Report 2022 on the activities of the State Commission on Railway Accident Investigation.

As part of supervision of the implementation of the PKBWK recommendations by railway market entities, the President of UTK analysed the recommendations submitted to him and, after making changes to their content, forwarded them for implementation to infrastructure managers, railway carriers, entities in charge of maintenance of rail vehicles and entities operating special vehicles.

The addressees of the recommendations which do not have a safety/maintenance management system in place should implement the recommendations on the basis of their existing internal regulations.

The recommendations arising from the aforementioned reports were forwarded by the President of UTK to the respective entities in writing (in letters with safety sheets attached).

The recommendations made by PKBWK in 2023 were forwarded for implementation by the President of UTK on a regular basis. Each time, all materials and information on the forwarded recommendations from a given report were posted on the UTK website.

UTK developed a questionnaire for the entities concerned to provide information on the progress in implementation of the recommendations received from the President of UTK.

6.1 Analysis of information on implementation of the recommendations

The President of UTK analysed the recommendations submitted to him, taking into account the need to ensure a systemic approach to safety management and risk minimisation in rail transport.

The President of UTK may consider the recommendations and accept them for implementation, or forward them in whole or in part for implementation to managers, railway carriers or other entities whose activities affect the safety of railway traffic and the safety of railway operations which are subject to regulation under the provisions of the Rail Transport Act.

A total of 34 recommendations were forwarded by the President of UTK to railway market entities for implementation.

The Commission issued a total of **36 recommendations in the five aforementioned reports and in the Annual Report 2022**, of which 34 recommendations were addressed to railway market entities under the statutory supervision of the President of UTK, and two recommendations were addressed in form of a motion to the competent central authorities (the minister in charge of transport).

The President of UTK forwarded the recommendations for implementation to authorised infrastructure managers, certified railway carriers, railway siding users, managers of narrow-gauge railways, managers of railway networks which are functionally separate from the Union railway system and intended for voivodeship or local transport (operating on the basis of safety certificates), and to operators of special vehicles.

Based on the information provided by the market entities, UTK analysed and assessed the implementation of the recommendations issued by PKBWK.

Where the implementation timetable presented by an entity concerned did not raise any doubts, the lack of 100% implementation of the recommendation did not negatively affect the assessment of the actions presented. Positive assessment was given to 73.6% of all responses. The remaining responses were assessed as incomplete, i.e. the information provided was either incomplete or did not explain the reasons why it did not apply to the entity concerned, or such reasons were not accepted. In addition, the presented averaged stage of implementation of the recommendations (hereinafter **the average percent implemented**) was determined on the basis of the data submitted to and received by the President of UTK between January 2023 and April 2024.

A "Positive assessment" means that the proposed way of implementing the recommendations was accepted and that the declared activities are leading to the proper the PKBWK recommendations.

In cases identified as **"Incomplete response"**, the information provided was found to be incomplete or no statement of reasons was provided.

Furthermore, the entities which failed to provide information on the implementation of the recommendations ("No response") are subject to administrative action, i.e. notices requesting information, written warnings and, in the case of gross negligence, procedures to revoke documents authorising the entities concerned to operate.

According to the information provided by the President of UTK, the analysis of the responses concerning implementation of the recommendations is as follows:

Re. 1) REPORT No. PKBWK 01/2023 on the investigation of a railway incident that occurred on 16 October 2019 at 13:51 hrs at Leszczyny station, at km 31.738 of railway line No. 140 Katowice Ligota - Nędza	
Recommendations of the State Commission on Railway Accident Investigation communicated in the report	As it transpires from " Information on the implementation of PKBWK recommendations in 2023 " (UTK letter No. DPN-WDZK.464.14.2024.1.MF of 26 April 2024), the President of UTK forwarded the recommendations to market entities and analysed the information obtained on the implementation of the following recommendations
	The content of the recommendations forwarded for implementation by the President of UTK
1. Infrastructure managers shall introduce the requirement for the manufacturers of station's computerised signalling equipment or their authorised representatives to participate in the process of internal acceptance of the equipment prior to commissioning.	PKBWK 01/2023_1 Authorised infrastructure managers, Warszawska Kolej Dojazdowa Sp. z o.o., hereinafter referred to as "WKD", and Pomorska Kolej Metropolitalna S.A., hereinafter referred to as "PKM", shall introduce the requirement for the manufacturers of station's computerised signalling equipment or their authorised representatives to participate in the process of internal acceptance of the equipment prior to commissioning.
2. Infrastructure managers shall include the subject of operating fire-fighting equipment, in particular fixed gas extinguishing systems, in their periodic instruction briefings for their personnel responsible for operation and maintenance of signalling equipment.	PKBWK 01/2023_2 Authorised infrastructure managers, WKD and PKM shall include the subject of operating fire-fighting equipment, in particular fixed gas extinguishing systems, in their periodic instruction briefings for their personnel responsible for operation and maintenance of signalling equipment.
3. Infrastructure managers shall install an emergency extinguishing button in the rooms of staff operating signalling equipment at stations equipped with an automatic extinguishing system.	PKBWK 01/2023_3 Authorised infrastructure managers, WKD and PKM shall install an emergency extinguishing button in the rooms of staff operating signalling equipment at stations equipped with an automatic extinguishing system.
4. PKP PLK S.A. shall update their Hazard Record with diagnosed risks of the source of fire in the signalling equipment.	PKBWK 01/2023_4 PKP Polskie Linie Kolejowe S.A., hereinafter referred to as "PKP PLK", shall update their Hazard Record with diagnosed risks of the source of fire in the signalling equipment.
5. PKP PLK S.A. shall reposition the fire switches in the Leszczyny signal box's relay room from the right side to the left side of the door (as sees when getting out of the relay room), and shall install a white "extinguishing lock" button.	PKBWK 01/2023_5 PKP PLK reposition the fire switches in the Leszczyny signal box's relay room from the right side to the left side of the door (as sees when getting out of the relay room), and shall install a white "extinguishing lock" button.

<p>6. Zakłady Automatyki Kombud S.A. shall specify the following in the Technical and Operational Documentation of the equipment:</p> <ul style="list-style-type: none"> – permissible time to leave the door of a computer cabinet open for the duration of maintenance, – the maximum permissible ambient temperature for a cabinet in a closed room, – the setting limits for the thermostat of the computer cabinet fan. 	<p>PKBWK 01/2023_6 Zakłady Automatyki Kombud S.A., hereinafter referred to as "Kombud", shall specify the following in the Technical and Operational Documentation of the equipment:</p> <ul style="list-style-type: none"> – permissible time to leave the door of a computer cabinet open for the duration of maintenance, – the maximum permissible ambient temperature for a cabinet in a closed room, – the setting limits for the thermostat of the computer cabinet fan.
<p>7. Zakłady Automatyki Kombud S.A. shall introduce changes in the MOR-1 system as regards sending information to the signaller workstations about alarms with information about exceeding the operating temperature of PLCs.</p>	<p>PKBWK 01/2023_7 Kombud shall introduce changes in the MOR-1 system as regards sending information to the signaller workstations about alarms with information about exceeding the operating temperature of PLCs.</p>
<p>8. Zakłady Automatyki Kombud S.A. shall reposition the fan thermostat in computer cabinets of the MOR-1 system so that it could be possible to detect a temperature rise in the top section of the cabinet.</p>	<p>PKBWK 01/2023_8 Kombud shall reposition the fan thermostat in computer cabinets of the MOR-1 system so that it could be possible to detect a temperature rise in the top section of the cabinet.</p>
<p>9. In the newly built MOR-1 system installations, Zakłady Automatyki Kombud S.A. shall install computer cabinet elements which ensure the minimum clearance for the controllers around the cassette base, in accordance with the requirements of the controller manufacturer.</p>	<p>PKBWK 01/2023_9 In the newly built MOR-1 system installations, Kombud shall install computer cabinet elements which ensure the minimum clearance for the controllers around the cassette base, in accordance with the requirements of the controller manufacturer.</p>
<p>Recommendations No. 1÷5 , adopted under a PKBWK resolution, were included in the report published online and forwarded to the President of UTK in accordance with Article 28l(8) of the Rail Transport Act of 5 March 2003.</p> <p>Recommendations No. 6÷9 , adopted under a PKBWK resolution, were included in the report published online and forwarded to the Zakłady Automatyki Kombud S.A. for implementation, in accordance with Article 28l(4) of the Rail Transport Act of 28 March 2003.</p>	

Table 4. **Analysis of the information provided concerning implementation of the recommendations from Report No. PKBWK 01/2023 forwarded by the President of UTK to railway market entities** (according to information from the President of UTK)

Statistical analysis of information concerning implementation of the recommendations from Report PKBWK 01/2023	
Number of recommendation addressees	14
Responses given in time	13
Failure to respond in time	1
Number of notices issued to entities	1
Number of responses given after notice	1
No response to notice	0

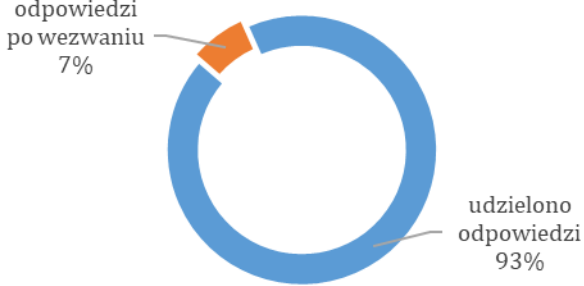


Table 5. **Assessment of the information provided concerning implementation of the recommendations from Report No. PKBWK 01/2023 forwarded by the President of UTK to railway market entities** (according to information from the President of UTK)

Assessment of information concerning implementation of the recommendations from Report PKBWK 01/2023									
Recommendations	PKBWK 01/2023_1	PKBWK 01/2023_2	PKBWK 01/2023_3	PKBWK 01/2023_4	PKBWK 01/2023_5	PKBWK 01/2023_6	PKBWK 01/2023_7	PKBWK 01/2023_8	PKBWK 01/2023_9
Positive assessment	12	11	13	1	1	1	1	1	1
Incomplete response	1	2	0	0	0	0	0	0	0
Average percent implemented:	89	47	93	100	100	100	10	100	100

Chart 8. **Average percentage level of implementation of respective recommendations from Report No. PKBWK 01/2023 forwarded by the President of UTK** (according to information from the President of UTK)

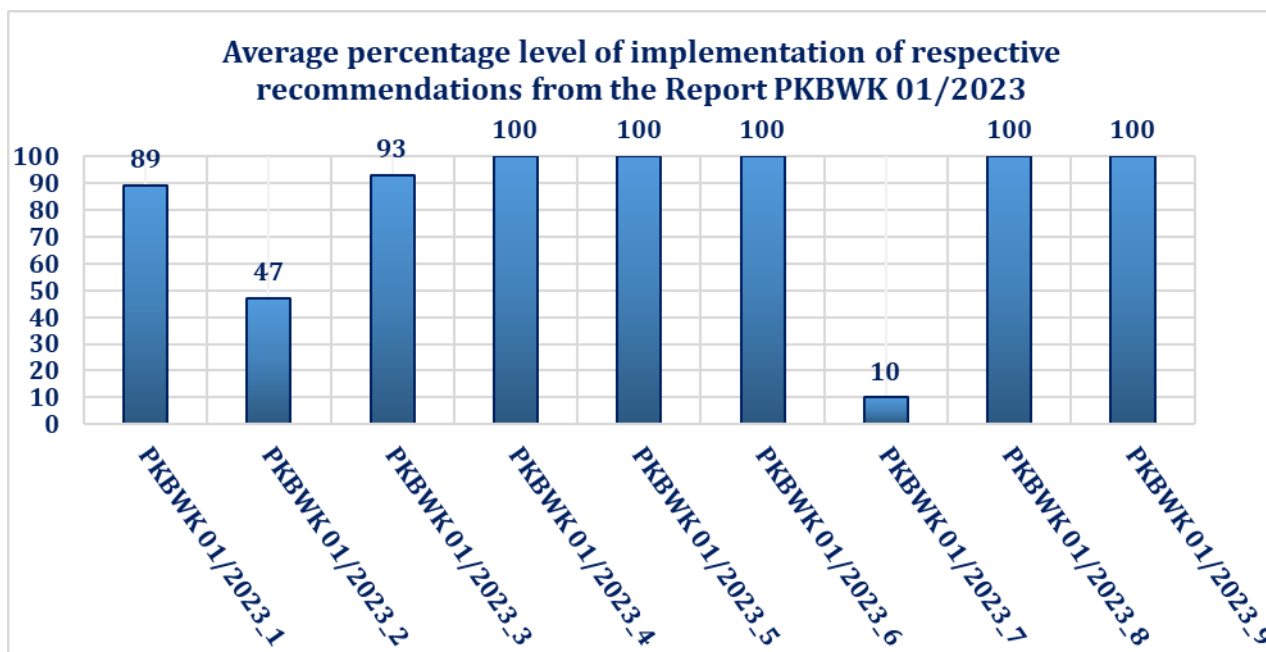
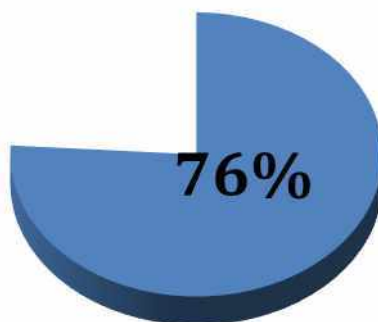


Chart 9. Average percentage level of implementation of the recommendations from Report No. PKBWK 01/2023 forwarded by the President of UTK (according to information from the President of UTK)



The average percentage level of implementation of the recommendations was determined by UTK on the basis of declarations made by the addressees of the respective recommendations. Values below 100% are due to the entity's timetable for actions aimed at full implementation of the PKBWK recommendations.

Table 6. Implementation of the recommendations by the entities listed by the Commission in Report No. PKBWK 01/2023 – based on the information provided to PKBWK in March 2024.

Recommendations arising from Report No. PKBWK 01/2023 (issued in 2023)	Recommendation addressees	Recommendation implementation date	Average percentage level (%) of implementation of the recommendation by the entities listed in column 2/(implementation stage)
1	2	3	4
Recommendation 1	(² ZI+ ³ WKD + ⁴) PKM) ¹) PKP PLK S.A.	..... 31/12/2024	89 (% - under implementation by: ZI + WKD + PKM)*) 20 (% - under implementation by – PKP PLK)
Recommendation 2	(ZI + WKD + PKM) PKP PLK	..... 31/12/2024	47 (% - under implementation by: ZI + WKD + PKM) *) 80 (% - under implementation by – PKP

			PLK)
Recommendation 3	(ZI + WKD + PKM) PKP PLK	..... 31/12/2023	93 (% - under implementation by: ZI + WKD + PKM *) 100 (% - alternative actions taken by PKP PLK)
Recommendation 4	PKP PLK	15/11/2022	100 (% - implemented by - PKP PLK *)
Recommendation 5	PKP PLK	31/12/2023	100 (% - implemented by - PKP PLK *)
Recommendation 6	⁵⁾ Zakłady Automatyki Kombud S.A.	07/04/2023	100 (% - implemented by - KOMBUD)
Recommendation 7	KOMBUD	15/03/2024	10 (% - under implementation by - KOMBUD)
Recommendation 8	KOMBUD	28/03/2023	100 (% - implemented by - KOMBUD)
Recommendation 9	KOMBUD	28/03/2023	100 (% - implemented by - KOMBUD)

*) according to the information on implementation of the PKBWK recommendations for the year 2023 - provided by UTK in letter DPN-WDZK.464.14.2024.1.MF dated 26 April 2024 (applies to implementation of the recommendations communicated by the President of UTK to railway market entities)

1) PKP PLK S.A. - means: PKP Polskie Linie Kolejowe S.A. - hereinafter referred to as "PKP PLK"

2) ZI - means: authorised railway infrastructure manager

3) WKD Sp. z o.o. - means: Warszawska Kolej Dojazdowa Sp. z o.o. - hereinafter referred to as "WKD"

4) PKM - Pomorska Kolej Metropolitalna S.A. - hereinafter referred to as "PKM"

5) Kombud S.A. - Zakłady Automatyki Kombud S.A. - hereinafter referred to as "KOMBUD"

Re. 2) REPORT No. PKBWK 02/2023 on the investigation of a railway accident that occurred on 20 June 2022 at 12:55 hrs at the junction post Regalica, railway line no. 351 Poznań Główny POD - Szczecin Główny, at km 204.079	
Recommendations of the State Commission on Railway Accident Investigation communicated in the report	As it transpires from " Information on the implementation of PKBWK recommendations in 2023 " (UTK letter No. DPN-WDZK.464.14.2024.1.FM of 26 April 2024), the President of UTK forwarded the recommendations to market entities and analysed the information obtained on the implementation of the following recommendations
	The content of the recommendations forwarded for implementation by the President of UTK
1. The infrastructure manager PKP PLK S.A. shall ensure oversight of the quality of the Company's investment and diagnostic processes.	PKBWK 02/2023_1 The infrastructure manager PKP Polskie Linie Kolejowe S.A. shall ensure oversight of the quality of the Company's investment and diagnostic processes.
2. The infrastructure manager PKP PLK S.A. shall strengthen the system of supervision of training and authorisation of employees in connection with organisational or technical changes that affect the manner in which they perform their activities.	PKBWK 02/2023_2 The infrastructure manager PKP Polskie Linie Kolejowe S.A. shall strengthen the system of supervision of training and authorisation of employees in connection with organisational or technical changes that affect the manner in which they perform their activities.
3. The infrastructure manager PKP PLK S.A. shall align its internal regulations with the provisions of the Regulation of the Minister of Infrastructure of 11 January 2021 on personnel employed on positions related directly to the operation and safety of rail traffic and to driving of specific types of rail vehicles (Journal of Laws of 2021, item 101, as amended) as regards authorisation.	PKBWK 02/2023_3 The infrastructure manager PKP Polskie Linie Kolejowe S.A. shall align its internal regulations with the provisions of the Regulation of the Minister of Infrastructure of 11 January 2021 on personnel employed on positions related directly to the operation and safety of rail traffic and to driving of specific types of rail vehicles (Journal of Laws of 2021, item 101, as amended) as regards authorisation.
The above recommendations, adopted under a PKBWK resolution, were included in the report published online and forwarded to the President of UTK in accordance with Article 28l(8) of the Rail Transport Act of 28 March 2003.	

Table 7. Analysis of the information provided concerning implementation of the recommendations from Report No. PKBWK 02/2023 forwarded by the President of UTK to railway market entities (according to information from the President of UTK)


Statistical analysis of information concerning implementation of the recommendations from Report PKBWK 02/2023		
Number of recommendation addressees	1	
Responses given in time	1	
Failure to respond in time	0	

Table 8. Assessment of the information provided concerning implementation of the recommendations from Report No. PKBWK 02/2023 forwarded by the President of UTK to railway market entities (according to information from the President of UTK)

Recommendations	PKBWK 02 /2023_1	PKBWK 02 /2023_2	PKBWK 02 /2023_3
Positive assessment	1	1	1
Incomplete response	0	0	0
Average percent implemented:	100	100	100

Chart 10. Average percentage level of implementation of respective recommendations from Report No. PKBWK 02/2023 forwarded by the President of UTK (according to information from the President of UTK)

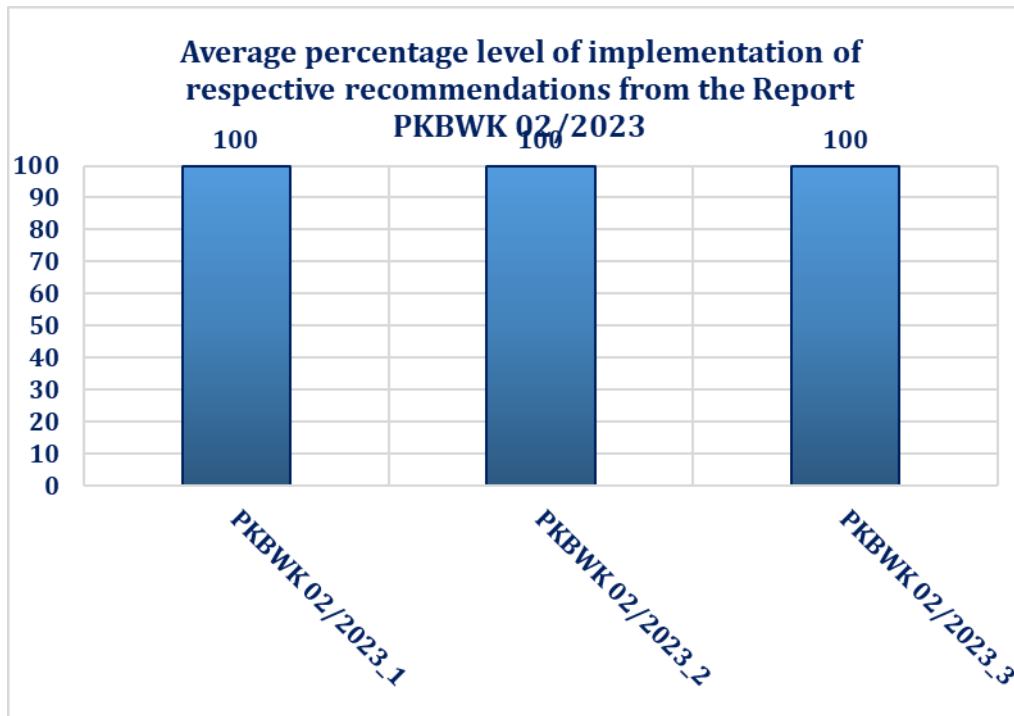
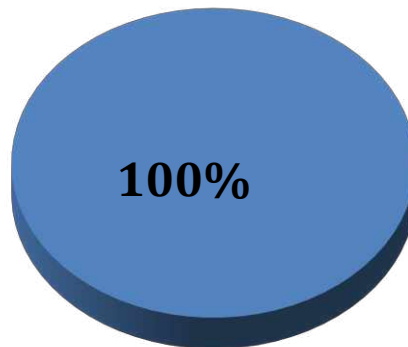


Chart 11. Average percentage level of implementation of the recommendations from Report No. PKBWK 02/2023 forwarded by the President of UTK (according to information from the President of UTK)



The average percentage level of implementation of the recommendations was determined by UTK on the basis of declarations made by the addressees of the respective recommendations.

Table 9. **Implementation of the recommendations by the entities listed by the Commission in Report No. PKBWK 02/2023** – based on the information provided to PKBWK in March 2024.

Recommendations arising from Report No. PKBWK 02/2023 (issued in 2023)	Recommendation addressees	Recommendation implementation date	Average percentage level (%) of implementation of the recommendation by the entities listed in column 2/(implementation stage)
1	2	3	4
Recommendation 1	PKP PLK	31/12/2023	100 (% - implemented by PKP PLK) *)
Recommendation 2	PKP PLK	25/03/2024	100 (% - implemented by PKP PLK) *)

Recommendation 3	PKP PLK	31/12/2023	100 (% - implemented by PKP PLK) *)
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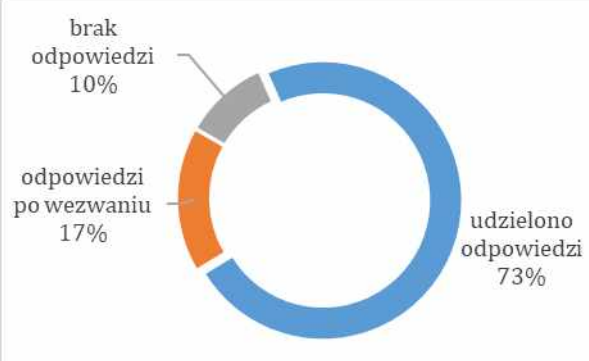
*) according to the information on implementation of the PKBWK recommendations for the year 2023 – provided by UTK in letter DPN-WDZK.464.14.2024.1.MF dated 26 April 2024 (applies to implementation of the recommendations communicated by the President of UTK to railway market entities)

Re. 3) REPORT No. PKBWK 03/2023 on the investigation of a railway accident that occurred on 3 November 2022 at 18:45 hrs at the passenger stop Krzcięcice, track no. 2, at km 244.636 of railway line no. 8 Warszawa Zachodnia - Kraków Główny	
Recommendations of the State Commission on Railway Accident Investigation communicated in the report	As it transpires from " Information on the implementation of PKBWK recommendations in 2023 " (UTK letter No. DPN-WDZK.464.14.2024.1.MF of 26 April 2024), the President of UTK forwarded the recommendations to market entities and analysed the information obtained on the implementation of the following recommendations
1. Carriers providing passenger carriage services shall arrange refresher training for train crews concerning compliance with the rules on stopping the train head at a designated place at stations and passenger stops.	The content of the recommendations forwarded for implementation by the President of UTK PKBWK 03/2023_1 Carriers providing passenger carriage services shall arrange refresher training for train crews concerning compliance with the rules on stopping the train head at a designated place at stations and passenger stops.
2. PKP PLK S.A. shall add W32 signs ahead of W4 "Stop here" signs at stations and passenger stops with platforms longer than 100 m.	PKBWK 03/2023_2 PKP PLK S.A. shall add W32 signs ahead of W4 "Stop here" signs at stations and passenger stops with platforms longer than 100 m.
3. Carriers providing passenger carriage services shall carry out an information campaign among their passengers about the purpose and use of the intercom devices on board passenger trains in emergency or safety hazard situations. At present, the description of their purpose and manner of operation is unclear and incomprehensible to passengers.	PKBWK 03/2023_3 Carriers providing passenger carriage services shall carry out an information campaign among their passengers about the purpose and use of the intercom devices on board passenger trains in emergency or safety hazard situations. At present, the description of their purpose and manner of operation is unclear and incomprehensible to passengers.
4. Carriers providing passenger carriage services shall introduce an obligation for the train crew to check internal communications via the intercom when receiving the train in the departure station and to respond appropriately to any calls made.	PKBWK 03/2023_4 Carriers providing passenger carriage services shall introduce an obligation for the train crew to check internal communications via the intercom when receiving the train in the departure station and to respond appropriately to any calls made.
5. Carriers providing passenger carriage services shall expand their instruction briefings by adding the topic of exchange of information on board trains with available technical means between the passengers,	PKBWK 03/2023_5 Carriers providing passenger carriage services shall expand their instruction briefings by adding the topic of exchange of information on board trains with available technical means between the passengers, train crew and train driver in situations where the safety of

train crew and train driver in situations where the safety of passengers and the train is at risk.	passengers and the train is at risk.
<p>6. PKP PLK S.A. Railway Line Plant in Kielce shall rectify the irregularities mentioned in Section V.3 of the Report.</p>	<p>PKBWK 03/2023_6 PKP PLK S.A. Railway Line Plant in Kielce shall rectify the irregularities mentioned in Section V.3 of the Report, i.e.</p> <ol style="list-style-type: none"> 1. At the Cat. A level crossing, which is 33 m long and crosses two railway lines: no. 8 (double-track) at km 244.630 and no. 65 (single-track) at km 311.347, there are two light points installed, which is in conflict with §88 of the Regulation of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met by crossings of railway lines and sidings with roads, and on their positioning (Journal of Laws, item 1744), which provides: "The number of light points shall be determined according to the length and width of the level crossing or passage, taking into account the illuminance and light evenness values in accordance with Standard PN-EN 12464-2 Light and lighting." 2. Redundant P12 absolute stop lines at Cat. A level crossing at km 244.630. 3. Fencing of the Cat. A level crossing at km 244.630 is incompatible with the Regulation of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met by crossings of railway lines and sidings with roads, and on their positioning (Journal of Laws, item 1744), which provides: The sections between the track and barrier shall be fenced off with railings to prevent access to the track by bypassing the barrier where the positioning of the barrier permits this. The ends of the railing closest to the track shall be positioned 3 m from the outermost rail. 4. Platform 2, which is made of paving slabs, has irregularities that create difficulties for passengers when boarding and disembarking.
<p>The above recommendations, adopted under a PKBWK resolution, were included in the report published online and forwarded to the President of UTK in accordance with Article 28l(8) of the Rail Transport Act of 28 March 2003.</p>	

Table 10. **Analysis of the information provided concerning implementation of the recommendations from Report No. PKBWK 03/2023 forwarded by the President of UTK to railway market entities** (according to information from the President of UTK)

Statistical analysis of information concerning implementation of the recommendations from Report PKBWK 03/2023	
Number of recommendation addressees	30
Responses given in time	22
Failure to respond in time	8
Number of notices issued to entities	8
Number of responses given after notice	5
No response to notice	3



Response Category	Percentage
udzielono odpowiedzi	73%
odpowiedzi po wezwaniu	17%
brak odpowiedzi	10%

Table 11. **Assessment of the information provided concerning implementation of the recommendations from Report No. PKBWK 03/2023 forwarded by the President of UTK to railway market entities** (according to information from the President of UTK)

Assessment of information concerning implementation of the recommendations from Report PKBWK 03/2023						
Recommendations	PKBWK 03 /2023_1	PKBWK 03 /2023_2	PKBWK 03 /2023_3	PKBWK 03 /2023_4	PKBWK 03 /2023_5	PKBWK 03 /2022_6
Positive assessment	25	1	25	24	24	1
Insufficient response	1	0	1	2	2	0
Average percent implemented:	76	80	78	79	68	100

Chart 12. **Average percentage level of implementation of respective recommendations from Report No. PKBWK 03/2023 forwarded by the President of UTK** (according to information from

the President of UTK)

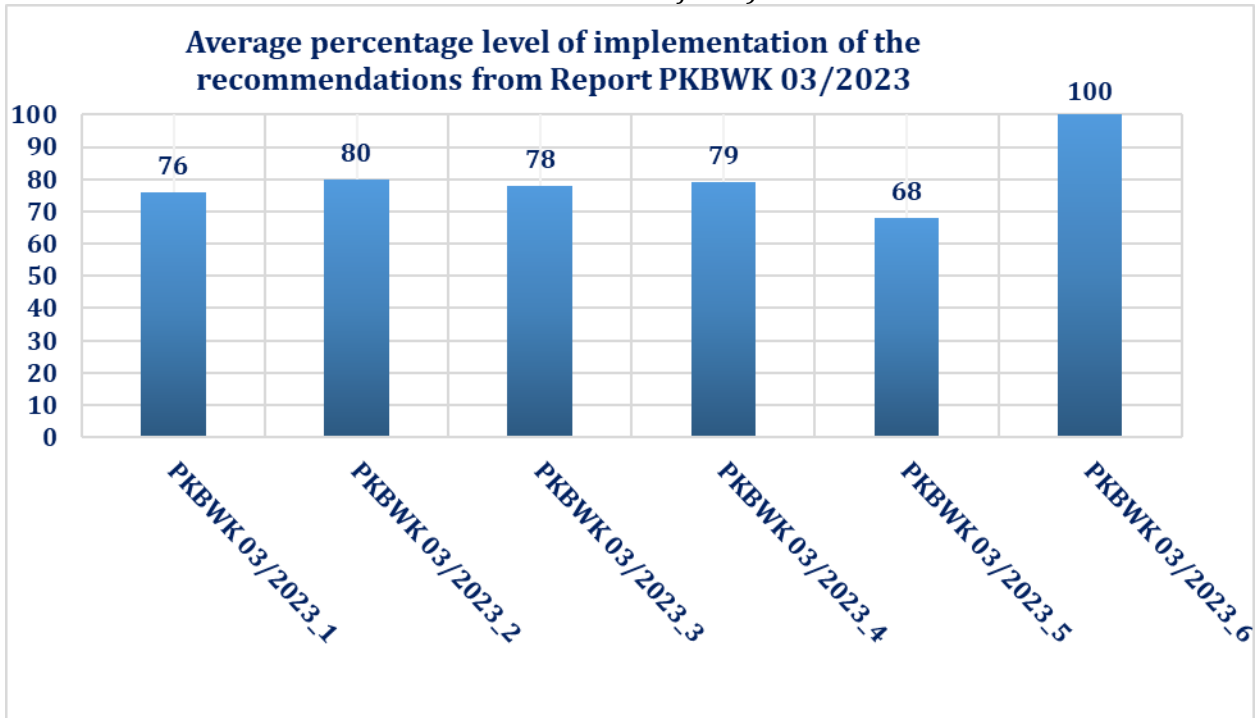
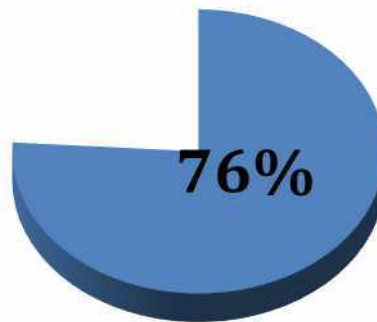


Chart 13. Average percentage level of implementation of the recommendations from Report No. PKBWK 03/2023 forwarded by the President of UTK (*according to information from the President of UTK*)



The average percentage level of implementation of the recommendations was determined by UTK on the basis of declarations made by the addressees of the respective recommendations. Values below 100% are due to the entity's timetable for actions aimed at full implementation of the PKBWK recommendations.

Table 12. **Implementation of the recommendations by the entities listed by the Commission in Report No. PKBWK 03/2023** – based on the information provided to PKBWK in March 2024.

Recommendations arising from Report No. PKBWK 03/2023 (issued in 2023)	Recommendation addressees	Recommendation implementation date	Average percentage level (%) of implementation of the recommendation by the entities listed in column 2/(implementation stage)
1	2	3	4
Recommendation 1	6) PKpp	.....	76 (% – under implementation by PKpp) ^{*)}

Recommendation 2	PKP PLK	30/06/2024	80 (% - under implementation by PKP PLK)
Recommendation 3	PKpp	.....	78 (% - under implementation by PKpp)*)
Recommendation 4	PKpp	.....	79 (% - under implementation by PKpp)*)
Recommendation 5	PKpp	.....	68 (% - under implementation by PKpp)*)

*) according to the information on implementation of the PKBWK recommendations for the year 2023 – provided by UTK in letter DPN-WDZK.464.14.2024.1.MF dated 26 April 2024 (applies to implementation of the recommendations communicated by the President of UTK to railway market entities)

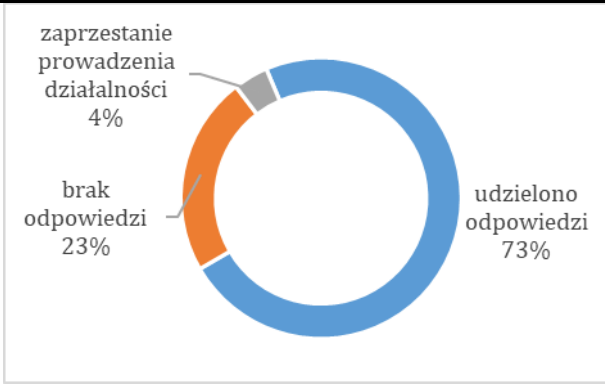
6) PKpp – means railway carriers that provide passenger carriage services

Re. 4)	
REPORT No. PKBWK 04/2023 on the investigation of a railway accident that occurred on 12 December 2022 at 02:35 hrs on the Koziegłowy - Poznań Piątkowo route, track no. 2, km 11.788 of railway line no. 395 Zieliniec - Kiekrz, Category C level crossing	
Recommendations of the State Commission on Railway Accident Investigation communicated in the report	As it transpires from " Information on the implementation of PKBWK recommendations in 2023 " (UTK letter No. DPN-WDZK.464.14.2024.1.MF of 26 April 2024), the President of UTK forwarded the recommendations to market entities and analysed the information obtained on the implementation of the following recommendations
	The content of the recommendations forwarded for implementation by the President of UTK
1. Authorised infrastructure managers shall take targeted actions addressed to their personnel (operation, repair, maintenance) to refresh the uniform rules of conduct in the event of non-activity of traffic protection devices at level crossings.	PKBWK 04/2023_1 Authorised infrastructure managers shall take targeted actions addressed to their personnel (operation, repair, maintenance) to refresh the uniform rules of conduct in the event of non-activity of traffic protection devices at level crossings.
2. In the event of a malfunction of automatic crossing system devices which cause the Osp-1 aspect to be displayed by a crossing distant signal one track of a given level crossing, infrastructure managers shall cause that the Osp-1 aspect is displayed for all tracks within the level crossing concerned.	PKBWK 04/2023_2 In the event of a malfunction of automatic crossing system devices which cause the Osp-1 aspect to be displayed by a crossing distant signal one track of a given level crossing, authorised infrastructure managers shall cause that the Osp-1 aspect is displayed for all tracks within the level crossing concerned.
3. In the event of an unserviceability of the automatic crossing system due to a malfunction of its elements, the infrastructure manager PKP PLK S.A. shall prohibit re-activation of the automatic crossing system from the remote control device level by the operating personnel after turning off road signals by that personnel.	PKBWK 04/2023_3 In the event of an unserviceability of the automatic crossing system due to a malfunction of its elements, the infrastructure manager PKP PLK S.A. shall prohibit re-activation of the automatic crossing system from the remote control device level by the operating personnel after turning off road signals by that personnel.
4. The infrastructure manager PKP PLK S.A. shall inspect and enhance supervision of the correctness and completeness of the provisions laid down in Books E1758.	PKBWK 04/2023_4 The infrastructure manager PKP PLK S.A. shall inspect and enhance supervision of the correctness and completeness of the provisions laid down in Books E1758.
5. The carrier PKP CARGO S.A. shall enhance supervision of the management of rail vehicle maintenance documentation, in particular as regards its	PKBWK 04/2023_5 The carrier PKP CARGO S.A. shall enhance supervision of the management of rail vehicle maintenance documentation, in particular as regards its accuracy concerning the condition of the vehicle.

accuracy concerning the condition of the vehicle.	
6. The infrastructure manager PKP PLK S.A. shall take effective actions to synchronise time in the electronic time system which it operates.	PKBWK 04/2023_6 The infrastructure manager PKP PLK S.A. shall take effective actions to synchronise time in the electronic time system which it operates.
7. Authorised infrastructure managers shall include in their hazard records the hazards relating to all types of structures erected within the visibility triangle. In each case, they shall conduct a risk analysis at the stage of designing structures close to level crossings, taking into account the local conditions of a given level crossing.	PKBWK 04/2023_7 Authorised infrastructure managers shall include in their hazard record the hazards relating to any structures erected within the visibility triangle. In each case, they shall conduct a risk analysis at the stage of designing structures close to level crossings, taking into account the local conditions of a given level crossing
8. Railway siding users, operators of narrow-gauge railways and infrastructure managers exempt from the obligation to obtain a safety authorisation and authorised to operate under a safety certificate shall inspect the conditions of development within visibility triangles, taking into account inter alia the provisions of Paragraphs 14 and 15, Part B of Annex 3 to the Regulation of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met by crossings of railway lines and sidings with roads, and on their positioning (Journal of Laws of 2015, item 1744, as amended).	PKBWK 04/2023_8 Rail siding users, operators of narrow-gauge railways and infrastructure managers exempt from the obligation to obtain a safety authorisation and authorised to operate under a safety certificate shall inspect the conditions of development within visibility triangles, taking into account inter alia the provisions of Paragraphs 14 and 15, Part B of Annex 3 to the Regulation of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met by crossings of railway lines and sidings with roads, and on their positioning (Journal of Laws of 2015, item 1744, as amended).
The above recommendations, adopted under a PKBWK resolution, were included in the report published online and forwarded to the President of UTK in accordance with Article 28l(8) of the Rail Transport Act of 28 March 2003.	

Table 13. **Analysis of the information provided concerning implementation of the recommendations from Report No. PKBWK 04/2023 forwarded by the President of UTK to railway market entities** (according to information from the President of UTK)

Statistical analysis of information concerning implementation of the recommendations from Report PKBWK 04/2023	
Number of recommendation addressees	607
Responses given in time	440
Failure to respond in time	140
Number of entities that ceased activities	27



Status	Percentage
udzielono odpowiedzi	73%
brak odpowiedzi	23%
zaprzestanie prowadzenia działalności	4%

Table 14. **Assessment of the information provided concerning implementation of the recommendations from Report No. PKBWK 04/2023 forwarded by the President of UTK to railway market entities** (according to information from the President of UTK)

Assessment of information concerning implementation of the recommendations from Report PKBWK 04/2023								
Recommendations	PKBWK 04/2023_1	PKBWK 04/2023_2	PKBWK 04/2023_3	PKBWK 04/2023_4	PKBWK 04/2023_5	PKBWK 04/2023_6	PKBWK 04/2023_7	PKBWK 04/2023_8
Positive assessment	13	13	1	1	1	1	13	370
Incomplete response	0	0	0	0	0	0	0	62
Average percent implemented:	72	66	10	10	100	50	89	73

Chart 14. **Average percentage level of implementation of respective recommendations from Report No. PKBWK 04/2023 forwarded by the President of UTK** (according to information from the President of UTK)

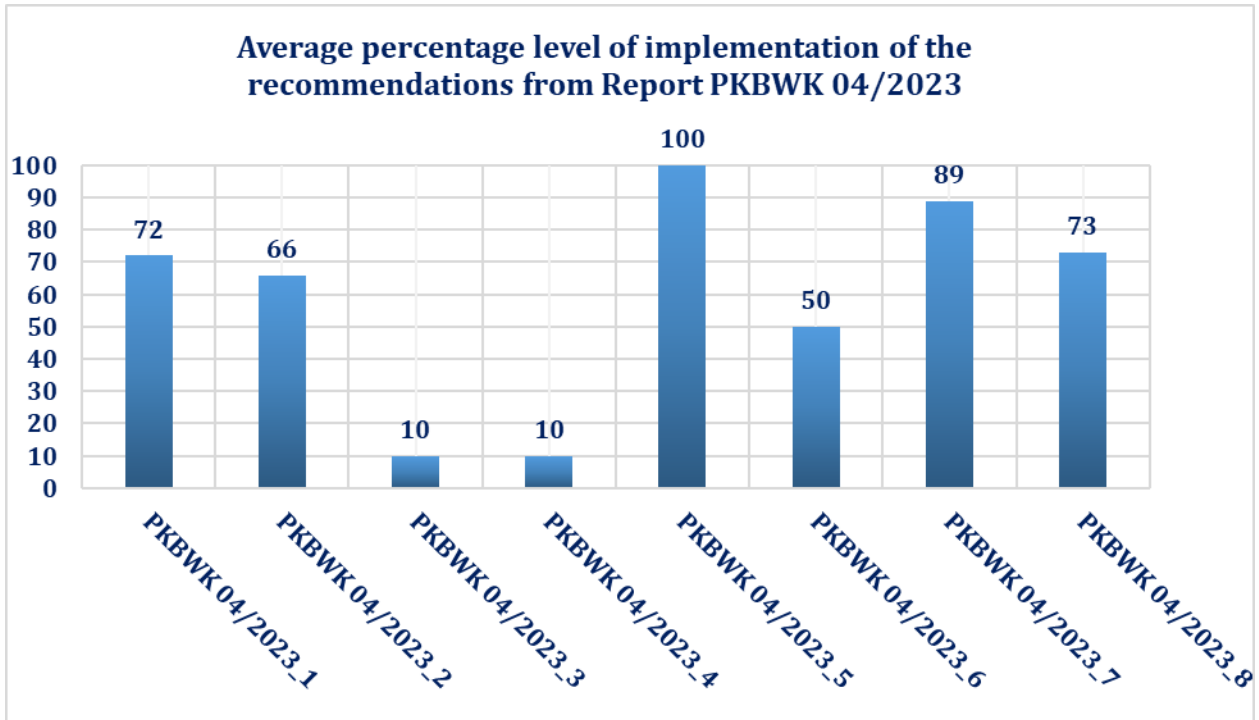
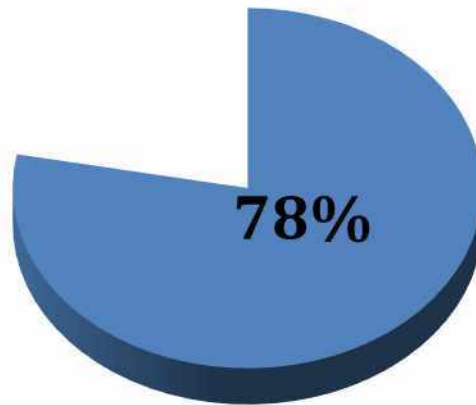


Chart 15. Average percentage level of implementation of the recommendations from Report No. PKBWK 04/2023 forwarded by the President of UTK (according to information from the President of UTK)



The average percentage level of implementation of the recommendations was determined by UTK on the basis of declarations made by the addressees of the respective recommendations. Values below 100% are due to the entity's timetable for actions aimed at full implementation of the PKBWK recommendations.

Table 15. Implementation of the recommendations by the entities listed by the Commission in Report No. PKBWK 04/2023 – based on the information provided to PKBWK in March 2024.

Recommendations arising from Report No. PKBWK 04/2023 (issued in 2023)	Recommendation addressees	Recommendation implementation date	Average percentage level (%) of implementation of the recommendation by the entities listed in column 2/(implementation stage)
1	2	3	4
Recommendation 1	ZI PKP PLK	..... 31/12/2024	72 (% - under implementation by ZI)* 10 (% - under implementation by PKP PLK)

Recommendation 2	ZI PKP PLK	..... 31/12/2024	66 (% - under implementation by ZI) *) 10 (% - under implementation by PKP PLK)
Recommendation 3	PKP PLK	31/12/2024	10 (% - under implementation by PKP PLK)
Recommendation 4	PKP PLK	30/09/2024	10 (% - under implementation by PKP PLK)
Recommendation 5	PKP CARGO S.A	15/01/2024	100 (% - implemented by - PKP CARGO S.A.)
Recommendation 6	PKP PLK	31/12/2024	50 (% - under implementation by PKP PLK)
Recommendation 7	ZI PKP PLK	..... 15/03/2024	89 (% - under implementation by ZI) *) 100 (% - implemented by - PKP PLK)
Recommendation 8	(⁷⁾ UŻb + (⁸⁾ OKW + (⁹⁾ ZI exempt entities)	.....	73 (% - under implementation by: UŻb + OKW + ZI exempt entities) *)

*) according to the information on implementation of the PKBWK recommendations for the year 2023 – provided by UTK in letter DPN-WDZK.464.14.2024.1.MF dated 26 April 2024 (applies to implementation of the recommendations communicated by the President of UTK to railway market entities)

⁷⁾ UŻb – means railway siding users

⁸⁾ OKW – means narrow-gauge railway operator – hereinafter referred to as "OKW"

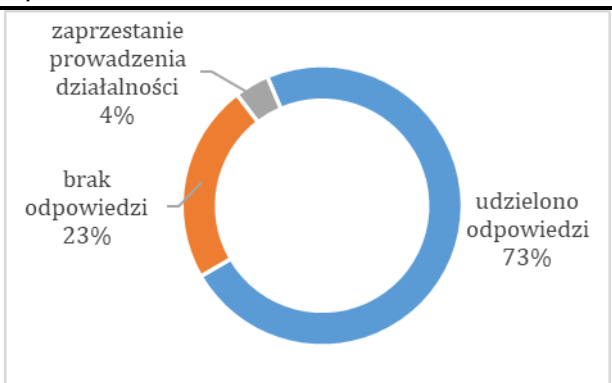
⁹⁾ "ZI exempt entities" - means infrastructure managers exempt from the obligation to obtain a safety authorisation, authorised to operate on the basis of a safety certificate

Re. 5) REPORT No. PKBWK 05/2023 on the investigation of a railway accident that occurred on 20 February 2023 at 18:11 hrs on the Chałupki – Krzyżanowice route, track no. 2, Category B level crossing, at km 47.973 of railway line no. 151 Kędzierzyn-Koźle – Chałupki	
Recommendations of the State Commission on Railway Accident Investigation communicated in the report	As it transpires from " Information on the implementation of PKBWK recommendations in 2023 " (UTK letter No. DPN-WDZK.464.14.2024.1.MF of 26 April 2024), the President of UTK forwarded the recommendations to market entities and analysed the information obtained on the implementation of the following recommendations
	The content of the recommendations forwarded for implementation by the President of UTK
1. The Minister in charge of transport shall lay down, among others, the conditions of positioning pedestrian crossings at level crossings in the implementing provisions to the Construction Law.	This recommendation does not apply to the President of the Office of Railway Transport who exercises statutory supervision of infrastructure managers and railway carriers.
2. The Minister in charge of transport shall take actions to amend the Regulation of the Minister of Infrastructure and Development on the technical conditions to be met by crossings of railway lines and sidings with roads, and on their positioning as regards activation of lights on all barrier bars simultaneously with the activation of road signals.	This recommendation does not apply to the President of the Office of Railway Transport who exercises statutory supervision of infrastructure managers and railway carriers.
3. Authorised railway infrastructure managers, users of railway sidings, operators of narrow-gauge railways and infrastructure managers exempt from the obligation to obtain a safety authorisation and authorised to operate under a safety certificate shall inspect level crossings as regards the location of pedestrian crossings in their immediate vicinity. Shall any such pedestrian crossings be identified, they shall immediately act together with the relevant road manager to move those pedestrian crossings outside the level crossing's danger zone.	PKBWK 05/2023_1 Authorised railway infrastructure managers, railway siding users, operators of narrow-gauge railways and infrastructure managers exempt from the obligation to obtain a safety authorisation and authorised to operate under a safety certificate shall inspect level crossings as regards the location of pedestrian crossings in their immediate vicinity. Shall any such pedestrian crossings be identified, they shall immediately act together with the relevant road manager to move those pedestrian crossings outside the level crossing's danger zone.
4. Railway infrastructure managers shall implement recommendation no. 2) Point 4.2 issued by the Commission in the PKBWK's Annual Report 2018, i.e. <i>"Infrastructure managers shall remove exit barriers in automatic crossing systems at Category B level crossings where solutions with four half-barriers</i>	PKBWK 05/2023_2 Authorised railway infrastructure managers, railway siding users and infrastructure managers exempt from the obligation to obtain a safety authorisation and authorised to operate under a safety certificate shall implement recommendation 2) Point 4.2 issued by the Commission in the PKBWK's Annual Report 2018, i.e. <i>"Infrastructure managers shall remove exit barriers in automatic crossing systems at</i>

<p><i>are employed. Such a configuration is inconsistent with the provisions of Point 6.2 of Annex no. 4 to the Regulation of the Minister of Infrastructure of 3 July 2003 on the detailed technical conditions concerning road signs and signals and road traffic safety devices, and on the conditions of their installation on roads (consolidated text: Journal of Laws of 2019, item 2311), which provides that: "barriers U-13a and U-13b which close the entire width of the roadway shall be used at Category A level crossings, whereas half-barriers U-13c shall be used at Category B level crossings. Half-barriers shall be positioned so that they close the right half of the road on each side (also where half-barriers are installed on one-way roadways)".</i></p> <p>In addition to the recommendation of 2018, efforts should be made to separate traffic lanes on one-way roads by means of installing separators.</p>	<p><i>Category B level crossings where solutions with four half-barriers are employed. Such a configuration is inconsistent with the provisions of Point 6.2 of Annex no. 4 to the Regulation of the Minister of Infrastructure of 3 July 2003 on the detailed technical conditions concerning road signs and signals and road traffic safety devices, and on the conditions of their installation on roads (consolidated text: Journal of Laws of 2019, item 2311), which provides that: "barriers U-13a and U-13b which close the entire width of the roadway shall be used at Category A level crossings, whereas half-barriers U-13c shall be used at Category B level crossings. Half-barriers shall be positioned so that they close the right half of the road on each side (also where half-barriers are installed on one-way roadways)".</i></p> <p>In addition to the recommendation of 2018, efforts should be made to separate traffic lanes on one-way roads by means of installing separators.</p>
<p>5. PKP PLK S.A. Railway Line Plant in Tarnowskie Góry shall: - change the position of the cameras at the level crossing to provide for monitoring of the area of the entire level crossing together with the road signals; - change the operation of the sound signal, which at present generates acoustic warning signals after rolling stock engages the switch-off sensor (as per the system's Technical and Operational Documentation).</p>	<p>PKBWK/05/2023_3 PKP PLK S.A. Railway Line Plant in Tarnowskie Góry shall: – change the position of the cameras at the level crossing to provide for monitoring of the area of the entire level crossing together with the road signals; – change the operation of the sound signal, which at present generates acoustic warning signals after rolling stock engages the switch-off sensor (as per the system's Technical and Operational Documentation).</p>
<p>Recommendations No. 1 and 2, adopted under a PKBWK resolution, were included in the report published online and forwarded to the Minister in charge of transport in accordance with Article 28l(4) of the Rail Transport Act of 28 March 2003.</p> <p>Recommendations No. 3, 4 and 5, adopted under a PKBWK resolution, were included in the report published online and forwarded to the President of UTK in accordance with Article 28l(8) of the Rail Transport Act of 5 March 2003.</p>	

Table 16. **Analysis of the information provided concerning implementation of the recommendations from Report No. PKBWK 05/2023 forwarded by the President of UTK to railway market entities** (according to information from the President of UTK)

Statistical analysis of information concerning implementation of the recommendations from Report PKBWK 05/2023	
Number of recommendation addressees	607
Responses given in time	440
Failure to respond in time	140
Number of entities that ceased activities	27



Category	Percentage
udzielono odpowiedzi	73%
brak odpowiedzi	23%
zaprzeszanie prowadzenia działalności	4%

Table 17. **Assessment of the information provided concerning implementation of the recommendations from Report No. PKBWK 05/2023 forwarded by the President of UTK to railway market entities** (according to information from the President of UTK)

Assessment of information concerning implementation of the recommendations from Report PKBWK 05/2023			
Recommendations	PKBWK 05 /2023_1	PKBWK 05 /2023_2	PKBWK 05 /2023_3
Positive assessment	371	359	1
Incomplete response	73	85	0
Average percent implemented:	74	91	100

Chart 16. **Average percentage level of implementation of respective recommendations from Report No. PKBWK 05/2023 forwarded by the President of UTK** (according to information from the President of UTK)

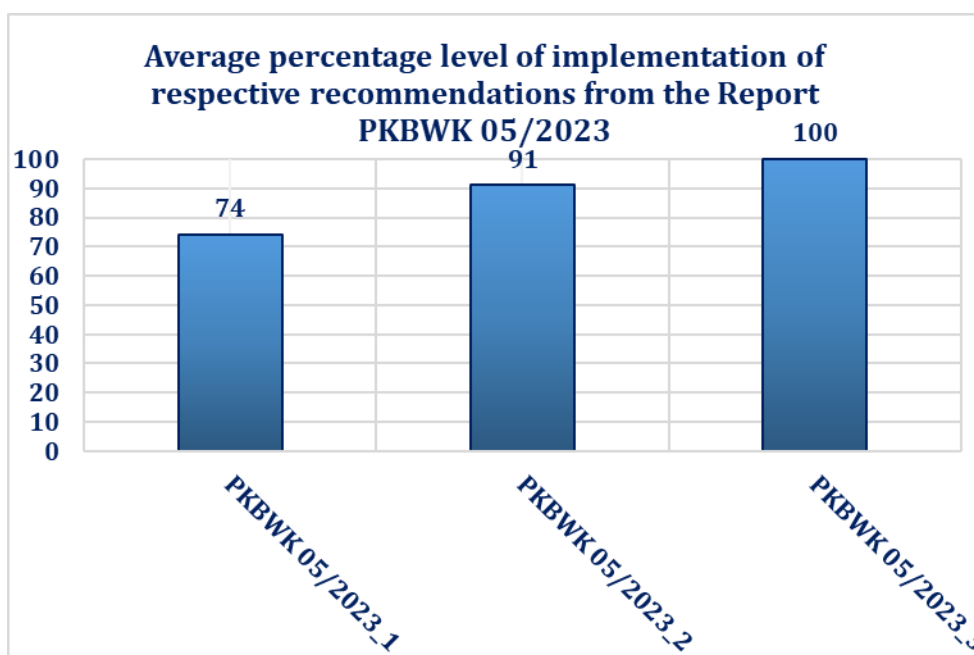
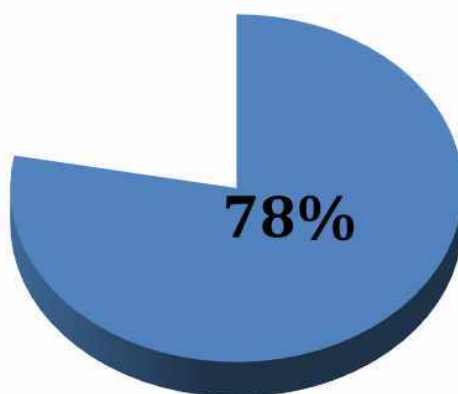


Chart 17. **Average percentage level of implementation of the recommendations from Report No. PKBWK 05/2023 forwarded by the President of UTK** (according to information from the President of UTK)



The average percentage level of implementation of the recommendations was determined by UTK on the basis of declarations made by the addressees of the respective recommendations. Values below 100% are due to the entity's timetable for actions aimed at full implementation of the PKBWK recommendations.

Table 18. **Implementation of the recommendations by the entities listed by the Commission in Report No. PKBWK 05/2023** – based on the information provided to PKBWK in March 2024.

Recommendations arising from Report No. PKBWK 05/2023 (issued in 2023)	Recommendation addressees	Recommendation implementation date	Average percentage level (%) of implementation of the recommendation by the entities listed in column 2/(implementation stage)
1	2	3	4
Recommendation 1	Minister of Infrastructure	10)	Not implemented by the date of publication of the Annual Report 2023.

Recommendation 2	Minister of Infrastructure	10)	Not implemented by the date of publication of the Annual Report 2023.
Recommendation 3	(ZI + UŻb + OKW + ZI exempt entities) PKP PLK	..... 30/09/2024	74 (% - under implementation by: (ZI + UŻb + OKW + ZI exempt entities)*) 50 (% - under implementation by PKP PLK)
Recommendation 4	(ZI + UŻb + OKW + ZI exempt entities) PKP PLK	..... 31/12/2024	91 (% - under implementation by: ZI + UŻb + OKW + ZI exempt entities)*) 50 (% - under implementation by PKP PLK)
Recommendation 5	¹¹⁾ PKP PLK ZLK in Tarnowskie Góry	15/03/2024	100 (% - implemented by PKP PLK)

*) according to the information on implementation of the PKBWK recommendations for the year 2023 – provided by UTK in letter DPN-WDZK.464.14.2024.1.MF dated 26 April 2024 (applies to implementation of the recommendations communicated by the President of UTK to railway market entities)

10) In letter PKBWK.590.5.18.2023 of 29 December 2023, the State Commission on Railway Accident Investigation forwarded Report PKBWK 05/2023 to the Minister of Infrastructure together with information on the above-mentioned recommendations. Recommendations arising from the investigation of the accident concerned are the responsibility of the Minister in charge of transport.

11) PKP PLK ZLK in Tarnowskie Góry - means: PKP PLK S.A. Tarnowskie Góry Railway Branch

Table 19. **Analysis of the information provided concerning implementation of the recommendations from the Annual Report 2022 on the activities of PKBWK forwarded by the President of UTK to railway market entities** (according to information from the President of UTK)

Statistical analysis of information concerning implementation of the recommendations from the Annual Report 2022	
Number of recommendation addressees	817
Responses given in time	628
Failure to respond in time	143
Number of notices issued to entities	143
Number of responses given after notice	97
No response to notice	46
Number of entities that ceased operations in the reporting period	46

Category	Percentage
udzielono odpowiedzi	77%
odpowiedzi po wezwaniu	12%
zaprzestanie prowadzenia działalności	6%
brak odpowiedzi	5%

Table 20. **Assessment of the information provided concerning implementation of the recommendations from the Annual Report 2022 forwarded by the President of UTK to railway market entities** (according to information from the President of UTK)

Assessment of information concerning implementation of the recommendations from the Annual Report 2022					
Recommendations	Annual Report 2022_1	Annual Report 2022_2	Annual Report 2022_3	Annual Report 2022_4	Annual Report 2022_5
Positive assessment	36	458	29	411	31
Incomplete response	2	263	8	301	7
Average percent implemented:	91	64	66	83	87

Chart 18. **Average percentage level of implementation of the recommendations from the Annual Report 2022 on the activities of PKBWK forwarded by the President of UTK** (according to the information from the President of UTK)

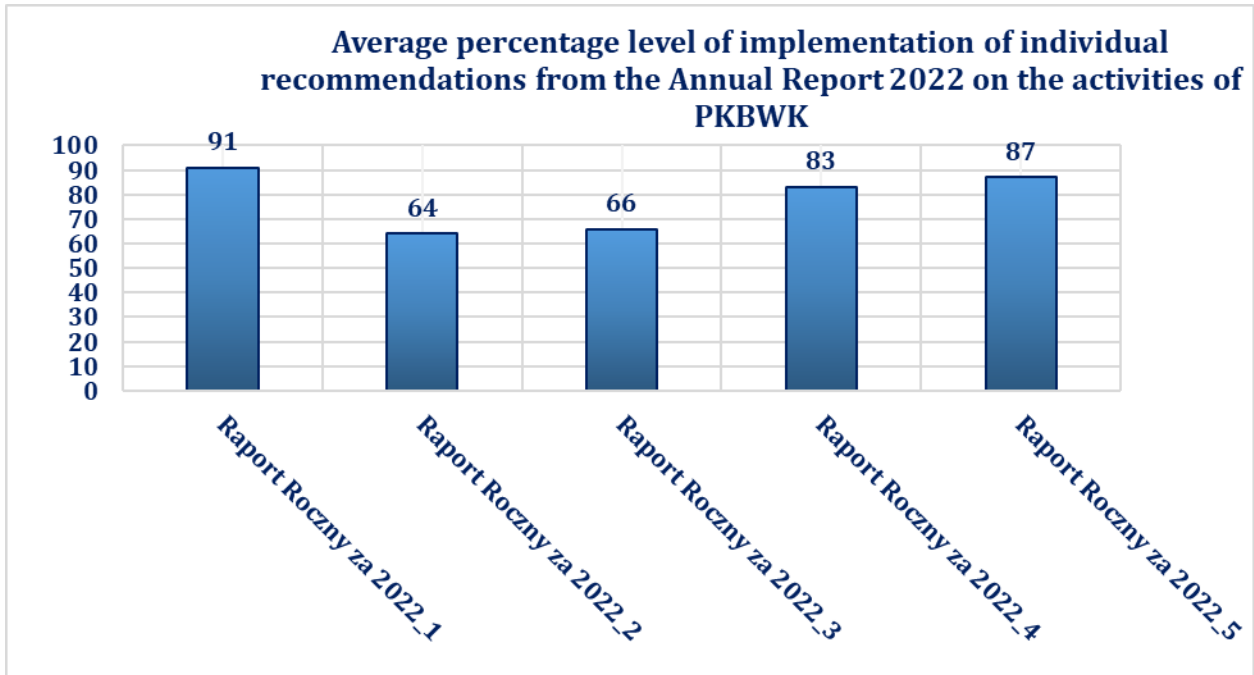
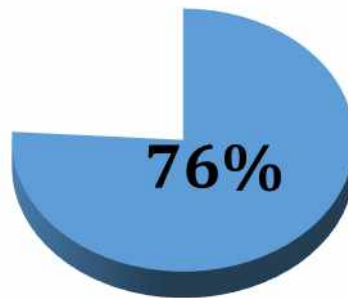


Chart 19. **Average percentage level of implementation of the recommendations from the Annual Report 2022 on the activities of PKBWK forwarded by the President of UTK** (based on information from UTK)



The average percentage level of implementation of the recommendations was determined by UTK on the basis of declarations made by the addressees of the respective recommendations. Values below 100% are due to the entity's timetable for actions aimed at full implementation of the PKBWK recommendations.

Table 21. **Status of implementation of the PKBWK recommendations issued in 2023 and published in the Annual Report 2022, based on the information provided to PKBWK in March 2024** (and based on information from UTK)

Recommendations from the Annual Report 2022 (issued in 2023)	Recommendation addressees	Recommendation implementation date	Average percentage level (%) of implementation of the recommendation by the entities listed in column 2/(implementation stage)
1	2	3	4
¹²⁾ Recommendation 1	(ZI + ZI exempt entities) PKP PLK	..... 30/04/2024	91 (% - under implementation by ZI + ZI exempt entities*) 95 (% - under implementation by PKP PLK)
¹²⁾ Recommendation 2	(ZI + ¹³⁾ PK + UŻb+ OKW + ZI exempt	.....	64 (% - under implementation by: ZI + PK

	entities) PKP PLK	31/12/2024	UŻb+ OKW + ZI exempt entities)* 15 (% - under implementation by PKP PLK)
¹²⁾ Recommendation 3	(ZI + ZI exempt entities) PKP PLK	..... 20/03/2024	66 (% - under implementation by: ZI + ZI exempt entities)*) 100 (% - implemented by PKP PLK)
¹²⁾ Recommendation 4	(CP + ZI + UŻb + OKW + ZI exempt entities) PKP PLK	..... 15/03/2024	83 (% - under implementation by: CP + ZI + UŻb + OKW + ZI exempt entities)*) 100 (% - implemented by PKP PLK)
¹²⁾ Recommendation 5	(ZI + ZI exempt entities) PKP PLK	..... 15/03/2024	87 (% - under implementation by: ZI + ZI exempt entities)*) 100 (% - implemented by PKP PLK)

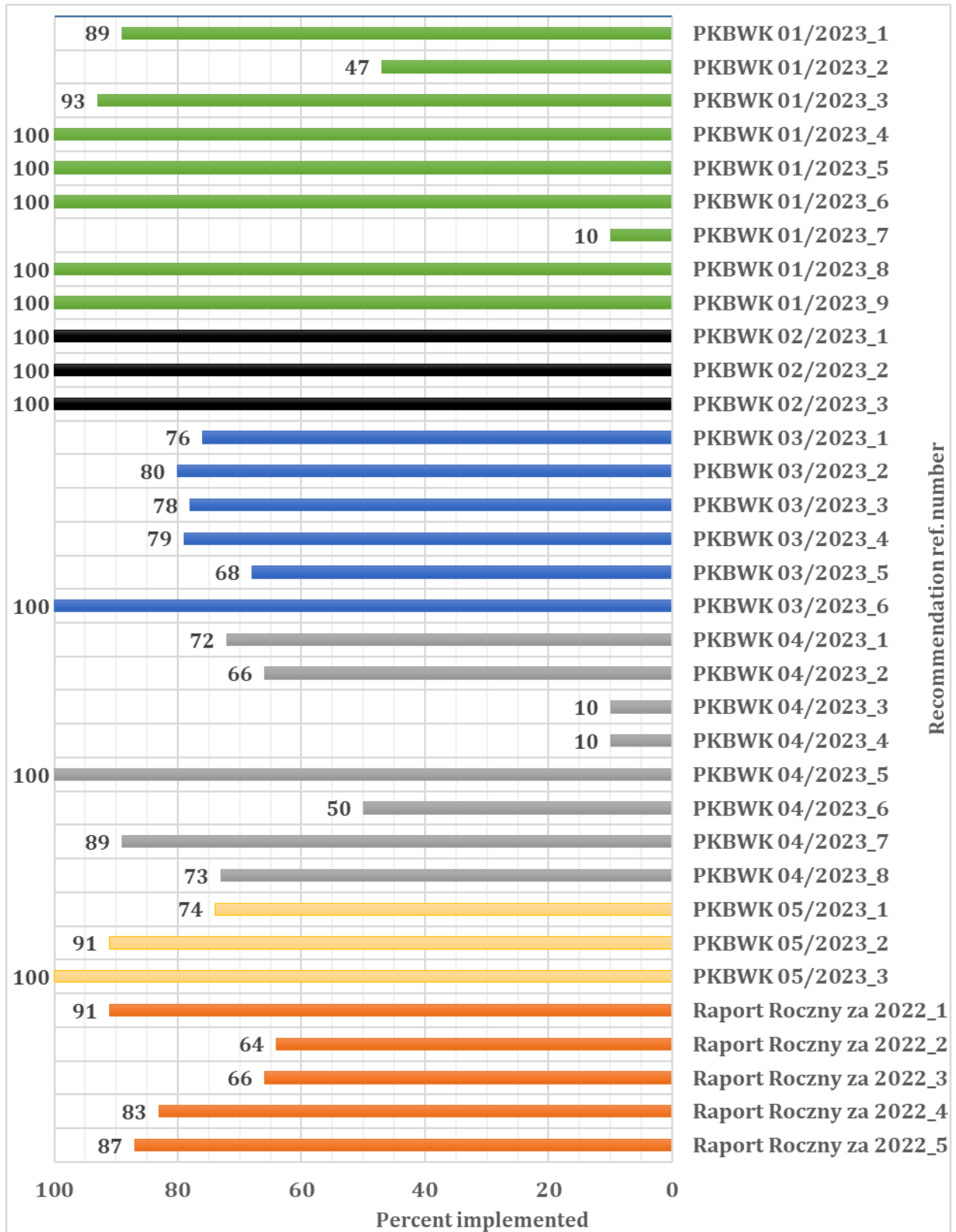
*) according to the information on implementation of the PKBWK recommendations for the year 2023 – provided by UTK in letter DPN-WDZK.464.14.2024.1.MF dated 26 April 2024 (applies to implementation of the recommendations communicated by the President of UTK to railway market entities)

¹²⁾ The content of the recommendations forwarded for implementation by the President of UTK is included in the summary in Section 5.1 of this report

¹³⁾PK means: railway carrier

Information on **average percentage levels of implementation of individual recommendations forwarded for implementation by the President of UTK** is included in Annex A to this Annual Report. Furthermore, information on implementation of the PKBWK recommendations issued in 2023 to other stakeholders (in accordance with Article 281(8) of the Rail Transport Act) is included in Annex B.

Chart 20. Average percentage level of implementation of the PKBWK recommendations in 2023
(according to Appendix A)



6.2 Summary of implementation of the Commission's recommendations (according to information from the President of UTK)

The President of UTK forwarded 37 recommendations arising from the PKBWK reports to the following railway market entities: certified railway carriers, authorised infrastructure managers, railway siding users, operators of narrow-gauge railways and managers of railway networks that are functionally separated from the Union railway system and intended only for voivodeship or local transport (operating on the basis of safety certificates).

The designated entities were obliged to inform the President of the UTK within a defined period on how they would deal with the PKBWK recommendations.

UTK analysed the responses given by domestic market entities used the findings to assess the implementation of the recommendations, with 73.6% of the responses given a positive assessment. For the most part, the analysis includes the assessment made by the President of UTK of how the recommendations had been implemented by entities operating under a safety management system or a maintenance management system. There were cases where it was found that the required information was missing, or where no justification was provided to demonstrate that the recommendation did not apply to the entity concerned. These issues will be monitored in the course of oversight activities carried out by the President of UTK, taking into account the potential safety risk and the seriousness of the non-compliance.

A total of 158 entities did not provide responses concerning implementation of recommendations arising from at least one PKBWK report.

According to the President of UTK, the entities that have not responded include mainly those that operate on the basis of safety certificates, including railway siding users, operators of narrow-gauge railways or infrastructure managers exempt from authorisation.

Between January 2023 and April 2024, as part of his oversight remit (in accordance with Article 28l(9) of the Act), the President of UTK reviewed the implementation status of selected recommendations arising from the PKBWK reports in 2022. A total of 25 reviews were carried in the period in question, of which: 6 at certified railway carriers, 5 at authorised infrastructure managers, 13 at railway siding users and one at a railway carrier exempt from the obligation to hold a safety certificate.

The manner of implementation of a total of 61 recommendations was verified during the oversight activities, and 45 warnings were issued to entities that were evading those obligations. The President of UTK initiated administrative proceedings for the imposition of a monetary fine against 8 entities that did not respond to a written warning.

The oversight activity of the President of UTK covers not only the recommendations issued by the Commission in a given reporting period, but also the recommendations issued in previous years that are of key importance to the safety of rail transport but had not been implemented in 100%.

Two recommendations arising from an investigation (Report No. PKBWK 5/2023) were

forwarded by the State Commission on Railway Accident Investigation to the minister in charge of transport in letter no. PKBWK.590.5.18.2023 of 29 December 2023.

7. Other aspects related to the activities of the Commission in 2023.

In 2023, the Commission carried out its activities with the aim to address the scheduled goals and challenges within the budget allocated for that year. Within the allocated funds, the Commission employed 9 permanent members, and since August 2022 – 10 permanent members.

As part of its activities, the Commission cooperated with other organisational units of the Ministry of the Interior and Administration, including in the analysis of draft legislation and industry programs, budget preparations as well as organisational and personnel matters.

The Commission's activities included:

- cooperation with the Office of Rail Transport (UTK),
- cooperation with railway commissions investigating the causes and circumstances of occurrences,
- trips by permanent members of the Commission to occurrence sites at the order of the Chairman of the Commission (20 occurrences),
- establishment of an investigation into an accident or incident, provided that it occurred under circumstances that justified such an investigation (10 decisions by the Chairman of the Commission),
- issue of safety recommendations in during investigations in progress (17 recommendations),
- cooperation with the public prosecutor's office and the police at the scene and in the later stages of the investigation in accordance with agreements signed and applicable regulations,
- cooperation with the organisers of training and conferences concerning the presentation of the Commission's work and the manner of investigating railway occurrences (serious accidents, accidents and incidents) by railway commissions, as well as participation in meetings and briefings at railway undertakings concerning the assessment of the state of rail transport safety,
- participation of Commission members in seminars and conferences on rail transport safety,
- cooperation with public road managers at various levels (district, municipal) following occurrences at level crossings,
- cooperation with national investigating bodies of other EU Member States,
- participation in meetings and working groups, and cooperation with the European Union Agency for Railways (EUAR),

- cooperation with units of the Ministry of the Interior and Administration in the area of drafting amendments to national legislation,
- cooperation with the office supporting the Minister of the Interior and Administration, in accordance with Article 28d of the Act,
- cooperation with the Ministry of Infrastructure,
- cooperation with the General Inspectorate of Road Transport (GITD) concerning devices that monitor offences committed by drivers of road vehicles in the area of level crossings.

8. Summary

In 2023, the total number of occurrences reported to the Commission increased by 5.9% compared to the previous year. There were 2,429 occurrences reported to the Railway Occurrence Record (EwZd) in 2023, compared to 2,294 in 2022 (an increase by 109 occurrences) (see Chart 1). In 2023, the extended scope of *Chapter 5a of the Rail Transport Act* continued to apply to the entities defined in Article 3 of the Act (including, but not limited to, managers of railway networks that are functionally separated from the railway system and intended only for voivodeship or local transport, and to railway carriers operating exclusively within those railway networks, e.g. WKD and narrow-gauge railway lines).

No serious accidents were recorded in EwZd in 2023, similarly to 2022, whereas in the area of accidents there was a 4% increase in the total number of accidents and a 6.6% increase in incidents compared to 2022.

On a positive note, there was a decrease in the number of accidents at Category A, B and C level crossings.

In 2023, there were 5 accidents at Category A level crossings, down by one compared to the previous year (6 accidents in 2022).

There were 15 accidents at Category B level crossings in 2022, compared to 11 accidents in 2023.

There were 30 accidents at Category C level crossings in 2023, compared to 42 in 2022.

A worrying development involved the significant increase in the number of accidents at Category D level crossings, where the number of occurrences increased by 23.6% in 2023 - from 106 in 2022 to 131 in 2023 (of which 7 accidents occurred at railway sidings and 5 on narrow-gauge railway lines).

In 2023, there were more than 36 occurrences involving a road vehicle entering a level crossing and running into the side of a rail vehicle in a train when traversing Category D, C and also B level crossings.

Another worrying trend involved the increase in the number of Cat. B03 occurrences (41 in 2023, compared to 33 in 2022) caused by dispatching, accepting or driving of a rail vehicle on an incorrectly set/unsecured route, or improper operation or absence of operation of signalling

equipment. On a positive note, there was a decrease in the number of Category B13 accidents, i.e. a rail vehicle running into a rail vehicle or other obstacle (e.g. a brake skid, a luggage trolley, a postal trolley) from 45 occurrences in 2022 to 34 in 2023. On the other hand, there was a worrying increase in Category C60 incidents involving a rail vehicle running over an obstacle (e.g. a brake skid, a luggage trolley, a postal cart, etc.) without derailment or casualties) - from 35 incidents in 2022 to 60 in 2023.

It must be noted that the number of Category (B04 + C44) occurrences increased in 2023 compared to 2022. In 2023, there were (36 + 129) incidents involving a rail vehicle failing to stop before a "Stop" signal or where it was supposed to stop, or starting a rail vehicle without the required authorisation, compared to (34 + 118) in 2022. It is therefore necessary to take coordinated action leading to a reduction in their number and negative impact on the operation of the railway system.

The Commission's Rail Occurrence Record (EwZd) showed an increase in the number of Category B17 and C50 occurrences, i.e. improper loading, unloading, irregularities in securing the cargo or other irregularities in cargo operations (B17: from 10 in 2022 up to 24 in 2023; and C50: from 23 in 2022 up to 24 in 2023). These above occurrences require enhanced supervision and involvement on the part of entities responsible for cargo operations and organisation of freight transport.

An analysis of the number of occurrences shows that there was a significant increase (by 114 incidents) in occurrences categorised as C64 (721 incidents in 2023, compared to 607 in 2022), i.e. *malicious, hooligan or reckless offences (e.g. throwing stones at a train, stealing cargo from a train or shunting consist in motion, placing an obstruction on the track, vandalising power, communication or rail traffic control equipment or track surface, and interfering with such equipment), with no casualties or adverse consequences for property or the environment, posing a risk to passengers or train staff*. As C64, railway commissions categorise incidents that involve road vehicles entering and remaining in the danger zone of a level crossing between closed semi-barriers (barriers).

In 2023, there were 721 Category C64 occurrences, including: 638 at level crossings, 67 cases of objects being thrown at trains, and 16 other incidents (theft, laying an obstruction and other hooligan acts). In contrast, there were 607 Category C64 occurrences in 2022, including: 517 at level crossings, 85 cases of objects being thrown at trains, and 5 other incidents.

A total of 720 incidents were recorded at level crossings in 2023 – involving failure of a road vehicle to stop before a closing or closed barrier (half-barrier closing the entry onto the level crossing), leading to damage to the barrier or road signals (82 Category C66 incidents) and malicious, hooligan or reckless offences posing a threat to passengers or train staff, including confinement of road vehicles at level crossings, damaging the barriers (638 Category C64 incidents).

It must be noted that the above figures concerning level crossing incidents, including confinement of road vehicles in the danger zone at Category B level crossings, are based only on information provided by the railway commissions in the *Final Findings Reports*. However, the true number of such occurrences is actually much higher, as some of them are categorised as Category C66 occurrences. It must be emphasised that not all occurrences are reported because once the train leaves the level crossing without colliding with the road vehicle, the barriers are lifted automatically, allowing the driver to drive away with impunity, despite the fact that they did not observe the traffic rules when entering the level crossing.

Infrastructure managers should continue to take steps to ensure that each incident where a road vehicle remains between closed barriers without any contact with rail vehicles is categorised only as Cat. C64. Railway carriers should, as part of their safety culture, take measures to ensure that drivers of rail vehicles report each case of a road vehicle remaining between closed barriers to the personnel of the infrastructure manager.

The number of casualties (fatalities) in the record of all railway accidents was lower, by 4.2 %, despite an increase in the number of occurrences (accidents) at level crossings in 2023 (see Chart 2).

Attention must be drawn to Category B34, which was updated as of 15 August 2024. The number of occurrences in the statistics in that category is significantly lower than that recorded as of 31 December 2023 due to completed investigations by the prosecutor office and reclassification of some incidents in Category B34 as suicides or attempted suicides.

Category C54 occurrences, i.e. rolling stock malfunctions or emergency conditions identified by detection equipment, confirmed in workshop conditions (hot axle boxes, hot brake resulting in a displaced rim), as well as other defects on rail vehicles in motion observed by the operating staff, should be subject to an in-depth analysis and hazard (irregularity) prevention. The number of such occurrences decreased from 199 in 2022 to 177 in 2023. Nevertheless, there is still a large number of such occurrences, which requires enhanced oversight and involvement of railway carriers and parties responsible (including entities in charge of maintenance (ECM)) for the organisation of freight transport.

On a positive note, there was a decrease in the number of Category C68 incidents - break-up of a train or shunting consist not resulting in a rail vehicle runaway (215 incidents in 2023, compared to 246 in 2022). The number of these incidents is still high, which should mobilise the railway commissions to conduct more thorough analyses of the related causes and circumstances in order to minimise the risks.

In 2023, the Record showed a 6.6% decrease in reported incidents compared to the previous year (see Chart 1). Compared to accidents, the reported incidents generated less material damage

and fewer casualties. Nevertheless, their number, which is still high, continues to provide important information about the existing risks which rail market entities should monitor as part of their safety management and maintenance management systems. Category C54, C64 and C68 incidents (177, 721 and 215 respectively) together accounted for more than 57.1% of all incidents that occurred in 2023.

Incidents that occurred during investment and modernisation works should be subject to an in-depth analysis and risk (irregularity) prevention. Investment-related occurrences are most often categorised as B09 and C51. Occurrence in Categories B09 and C51 related to damage to or poor maintenance of structures include also improper execution of investment and modernisation works (e.g. a rail vehicle running into equipment (materials) left on the track or within the track clearance). Furthermore, in addition to the aforementioned categories, occurrences related to irregularities in the execution of infrastructure repairs, investment and modernisation works were classified by railway commissions in other categories.

In the previous year, there was an increase in the number of Category B09 accidents from 44 in 2022 to 50 in 2023, and an increase in Category C51 incidents from 29 in 2022 to 58 in 2023. The number of those incidents is significant and should be given careful consideration by entities that oversee and organise such works (due to the significant impact of the human factor).

An analysis of the number of occurrences at railway sidings shows that there was an increase in 2023 (i.e. there were 180 occurrences in 2023, including 146 accidents and 34 incidents), compared to 2022 (a total of 168 occurrences, of which 128 were categorised as railway accidents and 40 as railway incidents).

Railway siding occurrences in 2023 accounted for 7.4% of the total number (2,429) of occurrences reported to PKBWK; accidents (146) accounted for 21.6% of the total number (677) of railway accidents reported to PKBWK; and incidents (34) accounted for 1.9% of the total number of railway incidents (1,752).

In this report, the Commission issued recommendations aimed at improving the safety of rail transport.

In 2023, the Commission carried out its statutory duties in cooperation with a number of entities, primarily railway commissions, national investigating bodies of other EU Member States, infrastructure managers and railway carriers, UTK and the European Union Railway Agency.

9. PKBWK contact details as of 1 August 2024.

State Commission on Railway Accident Investigation al. Jana Chrystiana Szucha 2/4 00-582 Warszawa PERMANENT MEMBERS:	
Tadeusz Ryś Chairman of PKBWK Tel. 47 722 84 16	Karol Trzoński Vice-Chairman of PKBWK Tel. 47 722 86 61
Rafał Leśniowski Vice-Chairman of PKBWK Tel. 47 722 87 33	..... Permanent member of PKBWK (vacancy)
Henryk Zgrzebnicki Secretary of PKBWK Tel. 47 722 85 99	Barbara Pióro Commission Service Worker Tel. 47 722 84 09, Fax 47 722 87 30 e-mail: pkbwk@mswia.gov.pl
Branch in Katowice ul. Rolna 43 40-555 Katowice	Branch in Poznań ul. Składowa 4 61-897 Poznań
Grzegorz Skarwecki Permanent member of PKBWK - coordinating the work of the Branch in Katowice Tel. 32 607-24-64	Benedykt Kugielki Permanent member of PKBWK coordinating the work of the Branch in Poznań Tel. 61 221-64-03
Tomasz Resiak Permanent member of PKBWK - Branch in Katowice Tel. 32 607-24-65	Dionizy Jędrych Permanent member of PKBWK - Branch in Poznań Tel. 61 221-64-05
Marek Róźyc Permanent member of PKBWK - Branch in Katowice Tel. 32 607-24-65	Tomasz Aleksandrowicz Permanent member of PKBWK - Branch in Poznań Tel. 61 221-64-05
..... Permanent Member of PKBWK (vacancy)	
Duty telephone 510 126 711	

PKBWK website

The Commission's website is available at:

<https://www.gov.pl/web/mswia>

section: What we do → State Commission on Railway Accident Investigation

On the Commission's website, all available information and documents are grouped into the following sections:

immediate notification of occurrences (Article 28g),

- written notification of railway occurrences (§7),
- composition of the Commission,
- legal acts and documents,
- reports,
- protection of personal data (in accordance with RODO).

APPENDIX "A"**Information on the implementation of the PKBWK recommendations issued in 2023**

(according to information provided by the President of the Office of Railway Transport)

As part of supervision of the implementation of the PKBWK recommendations by railway market entities, the President of UTK analysed the recommendations from the above-said reports submitted to him and, after making changes to their content, forwarded them for implementation to managers, railway carriers, entities in charge of maintenance of rail vehicles and entities operating special vehicles.

1. REPORT No. PKBWK 01/2023 on the investigation of a railway incident that occurred on 16 October 2019 at 13:51 hrs at Leszczyny station, at km 31.738 of railway line No. 140 Katowice Ligota - Nędza;
2. REPORT No. PKBWK 02/2023 on the investigation of a railway accident that occurred on 20 June 2022 at 12:55 hrs at the junction post Regalica, railway line No. 351 Poznań Główny POD - Szczecin Główny, at km 204.079;
3. REPORT No. PKBWK 03/2023 on the investigation of a railway accident that occurred on 3 November 2022 at 18:45 hrs at the passenger stop Krzcięcice, track no. 2, at km 244.636 of railway line no. 8 Warszawa Zachodnia - Kraków Główny;
4. REPORT No. PKBWK 04/2023 on the investigation of a railway accident that occurred on 12 December 2022 at 02:35 hrs on the Koziegłowy - Poznań Piątkowo route, track no. 2, km 11.788 of railway line no. 395 Zieliniec - Kiekrz, Category C level crossing;
5. REPORT No. PKBWK 05/2023 on the investigation of a railway accident that occurred on 20 February 2023 at 18:11 hrs on the Chałupki – Krzyżanowice route, track no. 2, Cat. B level crossing, at km 47.973 of railway line no. 151 Kędzierzyn-Koźle – Chałupki;
6. Annual Report 2022 on the activities of the State Commission on Railway Accident Investigation.

Analysis of information on implementation of respective recommendations – based on responses declared by railway market entities

Shown under each recommendation is the average percentage level of implementation of the recommendation concerned.

The average percentage level of implementation of the recommendations was determined by UTK on the basis of information provided by the addressees of the respective recommendations.

I. Recommendations forwarded by the President of UTK following an analysis of Report No. PKBWK 01/2023 on the investigation of a railway incident that occurred on 16 October 2019 at 13:51 hrs at Leszczyny station, at km 31.738 of railway line No. 140 Katowice Ligota - Nędza

PKBWK 01/2023_1 Authorised infrastructure managers, Warszawska Kolej Dojazdowa Sp. z o.o., hereinafter referred to as "WKD", and Pomorska Kolej Metropolitalna S.A., hereinafter referred to as "PKM", shall introduce the requirement for the manufacturers of station's computerised signalling equipment or their authorised representatives to participate in the process of internal acceptance of the equipment prior to commissioning.

RECOMMENDATION ADDRESSEES: authorised infrastructure managers, Warszawska Kolej Dojazdowa Sp. z o.o., Pomorska Kolej Metropolitalna S.A.

AVERAGE PERCENT IMPLEMENTED: 89%

PKBWK 01/2023_2 Authorised infrastructure managers, WKD and PKM shall include the subject of operating fire-fighting equipment, in particular fixed gas extinguishing systems, in their periodic instruction briefings for their personnel responsible for operation and maintenance of signalling equipment.

RECOMMENDATION ADDRESSEES: authorised infrastructure managers, Warszawska Kolej Dojazdowa Sp. z o.o., Pomorska Kolej Metropolitalna S.A.

AVERAGE PERCENT IMPLEMENTED: 47%

PKBWK 01/2023_3 Authorised railway infrastructure managers, WKD and PKM shall install an emergency extinguishing button in the rooms of staff operating signalling equipment at stations equipped with an automatic extinguishing system.

RECOMMENDATION ADDRESSEES: authorised infrastructure managers, Warszawska Kolej Dojazdowa Sp. z o.o., Pomorska Kolej Metropolitalna S.A.

AVERAGE PERCENT IMPLEMENTED: 93%

PKBWK 01/2023_4 PKP Polskie Linie Kolejowe S.A., hereinafter referred to as "PKP PLK", shall update their Hazard Records with diagnosed risks of the source of fire in the signalling equipment.

RECOMMENDATION ADDRESSEES: PKP Polskie Linie Kolejowe S.A.

PERCENT IMPLEMENTED: 100%

PKBWK 01-2023_5 PKP PLK shall reposition the fire switches in the Leszczyny signal box's relay room from the right side to the left side of the door (as sees when getting out of the relay room), and shall install a white "extinguishing lock" button.

RECOMMENDATION ADDRESSEES: PKP Polskie Linie Kolejowe S.A.

PERCENT IMPLEMENTED: 100%

PKBWK 01/2023_6 Zakłady Automatyki Kombud S.A., hereinafter referred to as "Kombud", shall specify the following in the Technical and Operational Documentation of the equipment:

- permissible time to leave the door of a computer cabinet open for the duration of maintenance,
- the maximum permissible ambient temperature for a cabinet in a closed room,
- the setting limits for the thermostat of the computer cabinet fan.

RECOMMENDATION ADDRESSEES: Zakłady Automatyki Kombud S.A.

PERCENT IMPLEMENTED: 100%

PKBWK 01/2023_7 Kombud shall introduce changes in the MOR-1 system as regards sending information to the signaller workstations about alarms with information about exceeding the operating temperature of PLCs.

RECOMMENDATION ADDRESSEES: Zakłady Automatyki Kombud S.A.

PERCENT IMPLEMENTED: 100%

PKBWK 01/2023_8 Kombud shall reposition the fan thermostat in computer cabinets of the MOR-1 system so that it could be possible to detect a temperature rise in the top section of the cabinet.

RECOMMENDATION ADDRESSEES: Zakłady Automatyki Kombud S.A.

PERCENT IMPLEMENTED: **100%**

PKBWK 01/2023_9 In the newly built MOR-1 system installations, Kombud shall install computer cabinet elements which ensure the minimum clearance for the controllers around the cassette base, in accordance with the requirements of the controller manufacturer. Recommendation addressees: Zakłady Automatyki Kombud S.A.

RECOMMENDATION ADDRESSEES: Zakłady Automatyki Kombud S.A.

PERCENT IMPLEMENTED: **100%**

II. Recommendations forwarded by the President of UTK following an analysis of Report No.

PKBWK 02/2023 on the investigation of a railway accident that occurred on 20 June 2022 at 12:55 hrs at the junction post Regalica, at km 204.079 of railway line No. 351 Poznań Główny POD - Szczecin Główny

PKBWK 02/2023_1 The infrastructure manager PKP Polskie Linie Kolejowe S.A. shall ensure oversight of the quality of the Company's investment and diagnostic processes.

RECOMMENDATION ADDRESSEES: PKP Polskie Linie Kolejowe S.A.

PERCENT IMPLEMENTED: **100%**

PKBWK 02/2023_2 The infrastructure manager PKP Polskie Linie Kolejowe S.A. shall strengthen the system of supervision of training and authorisation of employees in connection with organisational or technical changes that affect the manner in which they perform their activities.

RECOMMENDATION ADDRESSEES: PKP Polskie Linie Kolejowe S.A.

PERCENT IMPLEMENTED: **100%**

PKBWK 02/2023_3 The infrastructure manager PKP Polskie Linie Kolejowe S.A. shall align its internal regulations with the provisions of the Regulation of the Minister of Infrastructure of 11 January 2021 on personnel employed on positions related directly to the operation and safety of rail traffic and to driving of specific types of rail vehicles (Journal of Laws of 2021, item 101, as amended) as regards authorisation.

RECOMMENDATION ADDRESSEES: PKP Polskie Linie Kolejowe S.A.

PERCENT IMPLEMENTED: **100%**

III. Recommendations forwarded by the President of UTK following an analysis of Report No.

PKBWK 03/2023 on the investigation of a railway accident that occurred on 3 November 2022 at 18:45 hrs at the passenger stop Krzcięcice, track no. 2, at km 244.636 of railway line no. 8 Warszawa Zachodnia - Kraków Główny

PKBWK 03/2023_1 Carriers providing passenger carriage services shall arrange refresher training for train crews concerning compliance with the rules on stopping the train head at a designated place at stations and passenger stops.

RECOMMENDATION ADDRESSEES: carriers providing passenger carriage services

AVERAGE PERCENT IMPLEMENTED: **75.5%**

PKBWK 03/2023_2 PKP PLK S.A. shall add W32 signs ahead of W4 "Stop here" signs at stations and passenger stops with platforms longer than 100 m.

RECOMMENDATION ADDRESSEES: PKP Polskie Linie Kolejowe S.A.

PERCENT IMPLEMENTED: **80%**

PKBWK 03/2023_3 Carriers providing passenger carriage services shall carry out an information campaign among their passengers about the purpose and use of the intercom devices on board passenger trains in, among others, emergency or safety hazard situations. At present, the description of their purpose and manner of operation is unclear and incomprehensible to passengers.

RECOMMENDATION ADDRESSEES: carriers providing passenger carriage services
AVERAGE PERCENT IMPLEMENTED: **78%**

PKBWK 03/2022_4 Carriers providing passenger carriage services shall introduce an obligation for the train crew to check internal communications via the intercom when receiving the train in the departure station and to respond appropriately to any calls made.

RECOMMENDATION ADDRESSEES: carriers providing passenger carriage services
AVERAGE PERCENT IMPLEMENTED: **79%**

PKBWK 03/2023_5 Carriers providing passenger carriage services shall expand their instruction briefings by adding the topic of exchange of information on board trains with available technical means between the passengers, train crew and train driver in situations where the safety of passengers and the train is at risk.

RECOMMENDATION ADDRESSEES: carriers providing passenger carriage services
AVERAGE PERCENT IMPLEMENTED: **68%**

PKBWK 03/2023_6 PKP PLK S.A. Railway Line Plant in Kielce shall rectify the irregularities mentioned in Section V.3 of the Report, i.e.

1. At the Cat. A level crossing, which is 33 m long and crosses two railway lines: no. 8 (double-track) at km 244.630 and no. 65 (single-track) at km 311.347, there are two light points installed, which is in conflict with §88 of the Regulation of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met by crossings of railway lines and sidings with roads, and on their positioning (Journal of Laws, item 1744), which provides: "The number of light points shall be determined according to the length and width of the level crossing or passage, taking into account the illuminance and light evenness values in accordance with Standard PN-EN 12464-2 Light and lighting."
2. Redundant P12 absolute stop lines at Cat. A level crossing at km 244.630.
3. Fencing of the Cat. A level crossing at km 244.630 is incompatible with the Regulation of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met by crossings of railway lines and sidings with roads, and on their positioning (Journal of Laws, item 1744), which provides: The sections between the track and barrier shall be fenced off with railings to prevent access to the track by bypassing the barrier where the positioning of the barrier permits this. The ends of the railing closest to the track shall be positioned 3 m from the outermost rail.
4. Platform 2, which is made of paving slabs, has irregularities that create difficulties for passengers when boarding and disembarking.

RECOMMENDATION ADDRESSEES: PKP Polskie Linie Kolejowe S.A.
PERCENT IMPLEMENTED: **100%**

IV. Recommendations forwarded by the President of UTK following an analysis of Report No. PKBWK 04/2023 on the investigation of a railway accident that occurred on 12 December 2022 at 02:35 hrs on the Koziegłowy - Poznań Piątkowo route, track no. 2, km 11.788 of railway line no. 395 Zieliniec - Kiekrz, Category C level crossing

PKBWK 04/2023_1 Authorised infrastructure managers shall take targeted actions addressed to their personnel (operation, repair, maintenance) to refresh the uniform rules of conduct in the event of non-activity of traffic protection devices at level crossings.

RECOMMENDATION ADDRESSEES: authorised infrastructure managers
AVERAGE PERCENT IMPLEMENTED: **72%**

PKBWK 04/2023_2 In the event of a malfunction of automatic crossing system devices which cause the Osp-1 aspect to be displayed by a crossing distant signal one track of a given level crossing, authorised infrastructure managers shall cause that the Osp-1 aspect is displayed for all tracks within the level crossing concerned.

RECOMMENDATION ADDRESSEES: authorised infrastructure managers
AVERAGE PERCENT IMPLEMENTED: **66%**

PKBWK 04/2023_3 In the event of an unserviceability of the automatic crossing system due to a malfunction of its elements, the infrastructure manager PKP PLK S.A. shall prohibit re-activation of the automatic crossing system from the remote control device level by the operating personnel after turning off road signals by that personnel.

RECOMMENDATION ADDRESSEES: PKP Polskie Linie Kolejowe S.A.
AVERAGE PERCENT IMPLEMENTED: **10%**

PKBWK 04/2023_4 The infrastructure manager PKP PLK S.A. shall inspect and enhance supervision of the correctness and completeness of the provisions laid down in Books E1758.

RECOMMENDATION ADDRESSEES: PKP Polskie Linie Kolejowe S.A.
AVERAGE PERCENT IMPLEMENTED: **10%**

PKBWK 04/2023_5 The carrier PKP CARGO S.A. shall enhance supervision of the management of rail vehicle maintenance documentation, in particular as regards its accuracy concerning the condition of the vehicle.

RECOMMENDATION ADDRESSEES: PKP CARGO S.A.
PERCENT IMPLEMENTED: **100%**

PKBWK 04/2023_6 The infrastructure manager PKP PLK S.A. shall take effective actions to synchronise time in the electronic time system which it operates.

RECOMMENDATION ADDRESSEES: PKP Polskie Linie Kolejowe S.A.
PERCENT IMPLEMENTED: **50%**

PKBWK 04/2023_7 Authorised infrastructure managers shall include in their hazard record the hazards relating to any structures erected within the visibility triangle. In each case, they shall conduct a risk analysis at the stage of designing structures close to level crossings, taking into account the local conditions of a given level crossing.

RECOMMENDATION ADDRESSEES: authorised infrastructure managers
AVERAGE PERCENT IMPLEMENTED: **89%**

PKBWK 04/2023_8 Rail siding users, operators of narrow-gauge railways and infrastructure managers exempt from the obligation to obtain a safety authorisation and authorised to operate under a safety certificate shall inspect the conditions of development within visibility triangles, taking into account inter alia the provisions of Paragraphs 14 and 15, Part B of Annex 3 to the Regulation of the Minister of Infrastructure and Development of 20 October 2015 on the technical conditions to be met by crossings of railway lines and sidings with roads, and on their positioning (Journal of Laws of 2015, item 1744, as amended).

RECOMMENDATION ADDRESSEES: railway siding users, operators of narrow-gauge railways, infrastructure managers exempt from the obligation to obtain a safety authorisation

AVERAGE PERCENT IMPLEMENTED: **73 %**

V. Recommendations forwarded by the President of UTK following an analysis of Report No. PKBWK 05/2023 on the investigation of a railway accident that occurred on 20 February 2023 at 18:11 hrs on the Chałupki – Krzyżanowice route, track no. 2, Category B level crossing, at km 47.973 of railway line no. 151 Kędzierzyn-Koźle – Chałupki

PKBWK 05/2023_1 Authorised railway infrastructure managers, railway siding users, operators of narrow-gauge railways and infrastructure managers exempt from the obligation to obtain a safety authorisation and authorised to operate under a safety certificate shall inspect level crossings as regards the location of pedestrian crossings in their immediate vicinity. Shall any such pedestrian crossings be identified, they shall immediately act together with the relevant road manager to move those pedestrian crossings outside the level crossing's danger zone.

RECOMMENDATION ADDRESSEES: authorised railway infrastructure managers, users of railway sidings, operators of narrow-gauge railways and infrastructure managers exempt from the obligation to obtain a safety authorisation and authorised to operate under a safety certificate shall inspect level crossings as regards the location of pedestrian crossings in their immediate vicinity

AVERAGE PERCENT IMPLEMENTED: **74%**

PKBWK 05/2023_2 Authorised railway infrastructure managers, railway siding users and infrastructure managers exempt from the obligation to obtain a safety authorisation and authorised to operate under a safety certificate shall implement recommendation 2) Point 4.2 issued by the Commission in the PKBWK's Annual Report 2018, i.e.

"Infrastructure managers shall remove exit barriers in automatic crossing systems at Category B level crossings where solutions with four half-barriers are employed. Such a configuration is inconsistent with the provisions of Point 6.2 of Annex no. 4 to the Regulation of the Minister of Infrastructure of 3 July 2003 on the detailed technical conditions concerning road signs and signals and road traffic safety devices, and on the conditions of their installation on roads (consolidated text: Journal of Laws of 2019, item 2311), which provides that: "barriers U-13a and U-13b which close the entire width of the roadway shall be used at Category A level crossings, whereas half-barriers U-13c shall be used at Category B level crossings. Half-barriers shall be positioned so that they close the right half of the road on each side (also where half-barriers are installed on one-way roadways."

In addition to the recommendation of 2018, efforts should be made to separate traffic lanes on one-way roads by means of installing separators.

ADDRESSEES OF THE RECOMMENDATION: authorised railway infrastructure managers, railway siding users and infrastructure managers exempt from obtaining a safety authorisation, authorised to operate on the basis of a safety certificate

AVERAGE PERCENT IMPLEMENTED: **91%**

PKBWK 05/2023_3 PKP PLK S.A. Railway Line Plant in Tarnowskie Góry shall:

- change the position of the cameras at the level crossing to provide for monitoring of the area of the entire level crossing together with the road signals,
- change the operation of the sound signal, which at present generates acoustic warning signals after rolling stock engages the switch-off sensor (as per the system's Technical and Operational Documentation, DTR).

RECOMMENDATION ADDRESSEES: PKP PLK S.A. Tarnowskie Góry Railway Branch
AVERAGE PERCENT IMPLEMENTED: **100%**

VI. Recommendations forwarded by the President of UTK following an analysis of the Annual Report 2022

Annual Report for 2022_1 PKP Polskie Linie Kolejowe S.A. and other authorised railway infrastructure managers and infrastructure managers exempt from the obligation to obtain a safety authorisation, authorised to operate on the basis of a safety certificate, shall use their analyses of railway line sections where there are cases of incursions of forest animals on the track directly in front of an oncoming train to take measures, especially in forested areas, to deter forest animals or prevent them, by means of fencing, from being run over by traction vehicles.

RECOMMENDATION ADDRESSEES: authorised railway infrastructure managers and infrastructure managers exempt from obtaining a safety authorisation, authorised to operate on the basis of a safety certificate
AVERAGE PERCENT IMPLEMENTED: **91%**

Annual Report 2022_2 Infrastructure managers, railway carriers, railway siding users, operators of narrow-gauge railways and entities exempt from the obligation to obtain a safety authorisation but authorised to operate on the basis of a safety certificate shall provide periodic training for members of railway commissions in issues related investigating railway occurrences.

RECOMMENDED ADDRESSES: infrastructure managers, railway carriers, railway siding users, operators of narrow-gauge railways and entities exempt from the obligation to obtain a safety authorisation but entitled to operate on the basis of a safety certificate
AVERAGE PERCENT IMPLEMENTED: **64%**

Annual Report 2022_3 PKP Polskie Linie Kolejowe S.A. and other authorised railway infrastructure managers and infrastructure managers exempt from the obligation to obtain a safety authorisation, authorised to operate on the basis of a safety certificate, shall revise their existing regulations concerning the phase of restoring traffic after automatic transmission of the emergency alarm signal (radio-stop). In particular, they shall develop and implement a uniform form of the order to restore traffic issued to the traction teams (railway carriers) by the organiser of train traffic in the area where the Alarm was announced. Furthermore, they shall examine the suitability of the current location of the W28 indicator.

RECOMMENDATION ADDRESSEES: authorised railway infrastructure managers and infrastructure managers exempt from obtaining a safety authorisation, authorised to operate on the basis of a safety certificate
AVERAGE PERCENT IMPLEMENTED: **86%**

Annual Report 2022_4 Railway carriers, infrastructure managers with powered rail vehicles, railway siding users, operators of narrow-gauge railways and entities exempt from the obligation to obtain a safety authorisation, authorised to operate on the basis of a safety certificate, shall regulate (in their internal instructions/rules) and implement the prohibition of contacting the driver by mobile phone while driving except in emergency situations (e.g. communication failures) where it is necessary to inform the driver of situations that pose a risk to the safety of rail traffic.

RECOMMENDATION ADDRESSEES: railway carriers, infrastructure managers with powered rail vehicles, railway siding users, operators of narrow-gauge railways and

entities exempt from the obligation to obtain a safety authorisation, authorised to operate on the basis of a safety certificate

AVERAGE PERCENT IMPLEMENTED: **83%**

Annual Report 2022_5 PKP Polskie Linie Kolejowe S.A. and other authorised railway infrastructure managers and infrastructure managers exempt from the obligation to obtain a safety authorisation, authorised to operate on the basis of a safety certificate, shall analyse railway line sections where there have been cases of people being run over when entering the tracks in unsuitable places directly in front of an oncoming train, and shall take appropriate measures to reduce the number of such cases (e.g. by legalising the passage with appropriate (e.g. by legalising pedestrian passages with appropriate signage, railway police patrols, fencing, monitoring system (CCTV)). Railway commissions, when conducting investigations following Cat. B34 occurrences, shall carry out similar analyses for the locations concerned and shall include the aforementioned preventive measures in their conclusions.

RECOMMENDATION ADDRESSEES: authorised railway infrastructure managers and infrastructure managers exempt from obtaining a safety authorisation, authorised to operate on the basis of a safety certificate

AVERAGE PERCENT IMPLEMENTED: **87%**

ANNEX "B"

Information on the implementation of the PKBWK recommendations issued in 2023 and addressed to other stakeholders (Article 28l(8) of the Rail Transport Act)

Recommendations No. 6, 7, 8 and 9 from Report No. PKBWK 01/2023 on the investigation of the railway incident that occurred on 16 October 2019 at 13:51 hrs at Leszczyń station, km 31.738 of railway line No. 140 Katowice Ligota – Nędza, addressed to Zakłady Automatyki Kombud S.A. have been implemented in 100%. The status of implementation is shown in Appendix "A".

Recommendations contained in Report No. PKBWK 05/2023 on the investigation of a railway accident that occurred on 20 February 2023 at 18:11 hrs on the Chałupki – Krzyżanowice route, track no. 2, Cat. B level crossing, at km 47.973 of railway line no. 151 Kędzierzyn-Koźle – Chałupki

PKBWK 05/2023_recommendation_1 The Minister in charge of transport shall lay down, among others, the conditions of positioning pedestrian crossings at level crossings in the implementing provisions to the Construction Law.

RECOMMENDATION ADDRESSEE: Minister in charge of transport

PKBWK 05/2023_recommendation_2 The Minister in charge of transport shall take actions to amend the Regulation of the Minister of Infrastructure and Development on the technical conditions to be met by crossings of railway lines and sidings with roads, and on their positioning as regards activation of lights on all barrier bars simultaneously with the activation of road signals.

RECOMMENDATION ADDRESSEE: Minister in charge of transport

The State Commission on Railway Accident Investigation forwarded Report No. PKBWK 05/2023 to the Minister of Infrastructure in letter PKBWK.590.5.18.2023 of 29 December 2023 along with information on the aforementioned recommendations contained in Sections VI.1 and VI.2 (p. 40).

Recommendations arising from the investigation of the accident concerned are the responsibility of the minister in charge of transport.

ANNEX "C"
Breakdown of occurrences in 2023 compared to 2022 by category.

Occurrence category (letter designation)	Description of occurrence category Classification of the immediate cause	Category (numerical designation)	Total 2022	Total 2023
A			-	-
SERIOUS ACCIDENTS TOTAL				
B	Causes other than those listed below or a combination of several equivalent causes at the same time	00	26	19
	Dispatching a rail vehicle on an occupied, closed or opposite track or in the wrong direction	01	0	1
	Accepting a rail vehicle into a station on a closed or occupied track	02	0	0
	Dispatching, accepting or driving of a rail vehicle on an incorrectly set/unsecured route, or improper operation of signalling equipment	03	33	41
	Failure of a rail vehicle to stop before a "Stop" signal or where it was supposed to stop, or starting a rail vehicle without the required authorisation	04	34	36
	Failure to exercise caution after a railway vehicle has passed an automatic block signal displaying the aspect "Stop" or a doubtful aspect after having stopped beforehand	05	0	0
	Exceeding the maximum speed limit	06	0	1
	Carrying out a manoeuvre that poses a risk to the safety of train traffic	07	3	5
	Runaway rail vehicle	08	14	12
	Damage to or poor maintenance of the surface, bridge or overpass, overhead contact line, including also improper execution of works, e.g. improper unloading of materials, leaving materials and equipment (including road machinery) on the track or within the clearance of a rail vehicle	09	44	50
	Damage to or poor technical condition of a powered rail vehicle, special-purpose rail vehicle (including running into a structural element of a powered rail vehicle/special-purpose rail vehicle), and damage to or malfunction of the on-board rail vehicle control devices (ERTMS)	10	8	6
	Damage or poor condition of a wagon (including running into a structural part of the wagon)	11	15	15
	Damage to or malfunction of signalling equipment	12	3	3
	Rail vehicle running into a rail vehicle or other obstacle (e.g. a brake skid, a luggage trolley, a postal trolley)	13	45	34
	Criminal attack	14	0	0
	Premature route release or unlocking and switching the point under a rail vehicle	15	13	12
	Improper formation of a train or shunting consist	16	2	4
	Improper loading, unloading, irregularities in securing the cargo or other irregularities in cargo operations, or improper formation of a train or shunting consist	17	10	24
	Collision of a rail vehicle with a road vehicle (other road/agricultural machinery) at a level crossing with barriers (Cat. A according to the level crossing classification)	18	6	5
	Collision of a rail vehicle with a road vehicle (other road/agricultural machinery) at a level crossing equipped with an automatic crossing system with traffic lights and barriers (Cat. B)	19	15	11
	Collision of a rail vehicle with a road vehicle (other road/agricultural machinery) at a level crossing equipped with an automatic crossing system with traffic lights without barriers (Cat. C)	20	42	30
	Collision of a rail vehicle with a road vehicle (other road/agricultural machinery) at a level crossing without a crossing system (Cat. D)	21	106	131
	Collision of a rail vehicle with a road vehicle (other road/agricultural machinery) at a private-use level crossing (Cat. F)	22	2	2
	Collision of a rail vehicle with a road vehicle (other road/agricultural machinery) outside level crossings at stations and routes or on a siding access track	23	11	13
	Fire in a train, shunting consist or rail vehicle	24	8	3
	Fire in a building, etc. within a railway area; forest fire within the boundaries set by the end of the fire lane; fire of crops, grass and trackways arising within a railway area	26	0	0
	Explosion in a train, shunting consist or rail vehicle	27	0	0
	Natural disasters (e.g. flood, snowdrifts, ice jams, hurricanes, landslides)	28	0	0
	Construction disasters in the immediate vicinity of railway tracks on which normal train traffic is taking place	29	0	0
	Malicious, hooligan or reckless offences (e.g. throwing stones at a train, stealing cargo from a train or shunting consist in motion, placing an obstruction on the track, vandalising power, communication or rail traffic control equipment or track surface, and interfering with such equipment)	30	5	5
	Rail vehicle running into persons crossing the tracks at a level crossing or a guarded pedestrian passage	31	6	6
	Rail vehicle running into persons crossing the tracks at a level crossing with an automatic crossing system (Cat. B, C)	32	5	6
Rail vehicle running into persons crossing the tracks at other level crossings and pedestrian passages	33	10	13	
Rail vehicle running into persons crossing the tracks outside level crossings or pedestrian passages at stations and on routes	34	175	167	
Occurrences to persons involving a rail vehicle in motion (jumping in/falling out of a train/rail vehicle, strong approach or sudden braking of a railway vehicle)	35	9	18	
Disregard by the driver of a road vehicle of signals prohibiting entry onto a level crossing, leading to damage to the barriers or road signals	36	0	0	
Break-up of a train or shunting consist resulting in a wagon runaway	37	0	0	
Improper activation of structures and equipment designed to operate railway traffic caused by theft	38	0	0	
Entry of a rail vehicle powered from an overhead contact line on an unoccupied non-electrified track	39	0	2	
Uncontrolled release of dangerous goods from a wagon or packaging that requires an intervention by the authorities or application of measures to eliminate a fire, chemical or biological hazard at a station or on a route	40	0	0	
Undefined category	-	1	2	
ACCIDENTS			651	677
TOTAL				
C	Dispatching a rail vehicle on an occupied, closed or opposite track or in the wrong direction	41	2	0
	Accepting a rail vehicle into a station on a closed or occupied track	42	1	2
	Dispatching, accepting or driving of a rail vehicle on an incorrectly set/unsecured route, or improper operation or absence of operation of signalling equipment	43	85	76
	Failure of a rail vehicle to stop before a "Stop" signal or where it was supposed to stop, or starting a rail vehicle without the required authorisation	44	118	129
	Exceeding the maximum speed limit	45	25	11
	Carrying out a manoeuvre that poses a risk to the safety of train traffic	46	3	1
	Runaway rail vehicle	47	9	5
Premature route release or unlocking and switching the point under a rail vehicle	48	4	2	

Improper train formation	49	1	0
Improper loading, unloading, irregularities in securing the cargo or other irregularities in cargo operations	50	23	24
Damage to the surface, bridge or overpass, overhead contact line, including also improper execution of works, e.g. improper unloading of materials, leaving materials and equipment (including road machinery) on the track or within the clearance of a rail vehicle	51	29	58
Incorrect activation of signalling equipment causing: - failure to secure a line block section occupied by a rail vehicle with the "Stop" signal, - displaying the permissive aspect on a signal with an incorrectly set route, incorrectly operating track or turnout occupancy control equipment, incorrectly operating station or line block system, - failure to warn and protect road users against a train approaching a level crossing or pedestrian passage equipped with a crossing system	52	4	3
Damage to or poor technical condition of a powered rail vehicle, special-purpose rail vehicle leading to the necessity to put it out of service as a result of indications shown by rolling stock malfunction detection equipment, confirmed in workshop conditions (hot axle boxes, hot brake resulting in a displaced rim), as well as other defects on rail vehicles in motion observed by the operating staff (e.g. broken spring)	53	33	31
Damage to or poor technical condition of a wagon leading to the necessity to put it out of service as a result of indications shown by rolling stock malfunction detection equipment, confirmed in workshop conditions (hot axle boxes, hot brake resulting in a displaced rim), as well as other defects on rail vehicles in motion observed by the operating staff	54	199	177
Fire in a train or rail vehicle with no adverse consequences for property or the environment, without casualties	55	24	27
Fire of a building or vegetation in the immediate vicinity of a railway track on which normal rail traffic is taking place	57	3	2
Uncontrolled release of dangerous goods from a wagon or packaging that requires an intervention by the authorities or application of measures to eliminate a fire, chemical or biological hazard at a station or on a route	59	0	4
A rail vehicle running over an obstacle (e.g. a brake skid, luggage trolley, a postal cart, etc.) without derailment or casualties	60	35	60
Criminal attack	61	1	0
Natural disasters (e.g. flood, snowdrifts, ice jams, hurricanes, landslides)	62	33	13
Construction disasters in the immediate vicinity of railway tracks on which normal train traffic is taking place	63	0	0
Malicious, hooligan or reckless offences (e.g. throwing stones at a train, stealing cargo from a train or shunting consist in motion, placing an obstruction on the track, vandalising power, communication or rail traffic control equipment or track surface, and interfering with such equipment), with no casualties or adverse consequences for property or the environment, posing a risk to passengers or train staff	64	607	721
Occurrences to persons involving a rail vehicle in motion (crossing the tracks at or outside level crossings and pedestrian passages, jumping in/falling out of a train/rail vehicle, being hit by rolling stock in motion, strong approach or sudden braking of a rail vehicle), without casualties or negative consequences for property or the environment	65	30	81
Failure of a road vehicle to stop ahead of a closed barrier (half-barrier), leading to damage to the barrier or road signals that displayed signals warning of an oncoming train, without a collision with a rail vehicle	66	87	82
Improper functioning of structures and equipment designed to operate railway traffic caused by theft	67	1	0
Break-up of a train or shunting consist not resulting in a wagon runaway	68	246	215
Causes other than those listed above or a combination of several equivalent causes at the same time	69	40	28
INCIDENTS TOTAL		1643	1752
OCCURRENCES TOTAL		2294	2429