**STATE COMMISSION ON RAILWAY ACCIDENT INVESTIGATION**

# REPORT No. PKBWK 04/2026

**on the investigation of a serious railway accident
occurred on 6 October 2025 at 11.45 am at Wrocław Nadodrze station,
track No. 209, turnout No. 205, km 161.089
of railway line No. 143 Kalety – Wrocław Popowice WP2
within the area managed by the railway infrastructure manager PKP PLK S.A.
Railway Line Plant in Wrocław**

PKBWK
PAŃSTWOWA KOMISJA
BADANIA WYPADKÓW
KOLEJOWYCH

**WARSAW, 11th of September 2026**
https://www.gov.pl/web/mswia/panstwowa-komisja-badania-wypadkow-kolejowych

**Pursuant to Article 28f(3) of the Act of 28 March 2003 on rail transport, the Commission's investigation determines neither guilt nor liability.**

This Report has been prepared under *Commission Implementing Regulation (EU) 2020/572 of 24 April 2020 on the reporting structure to be followed for railway accident and incident investigation reports (OJ L 132, 27.4.2020, p. 10)*

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# I. SUMMARY


**Type of occurrence:** Serious accident.

**Description of the occurrence:** A shunting train comprising a DH350-11-15 draisine pushing three wagons struck a security guard who was walking on the track, resulting in a fatality, whilst shunting towards the depot of the Special Technical Rescue Train (SPRT) at Wrocław Nadodrze station. The shunting movement of the shunting train was taking place in the direction of track 209, and the accident occurred at turnout No. 205. There was no employee observing the route on the first pushed wagon.

**Date of the occurrence:** 6 October 2025, 11:45 hrs.

**Location of the occurrence:** Railway line No. 143 Kalety – Wrocław Popowice WP2, Wrocław Nadodrze station, track No. 209, turnout No. 205, km 161.089.

**Consequences of the occurrence:** As a result of the occurrence, a security guard working at the SPRT depot died at the scene.

**Causal factor:** *(means any action, omission, event or condition, or a combination thereof that if corrected, eliminated, or avoided, would have prevented the occurrence, in all likelihood)*

A shunting train colliding with a security guard walking along track No. 209 at turnout No. 205.

**Contributing factors:** *(any action, omission, event or condition that affects an occurrence by increasing its likelihood, accelerating the effect in time or increasing the severity of the consequences, but the elimination of which would not have prevented the occurrence)*

1) Walking between the rails (on the track center line) by the SPRT depot security guard after the entrance gate has been opened.
2) Movement of the security guard in a manner inconsistent with the rules for safe movement on active tracks and failure to use personal protective equipment.
3) Failure to draw up detailed rules for conducting shunting operations at the SPRT depot.
4) Inadequate briefing on shunting operations by the shunting foreman.
5) Failure by the shunting foreman to occupy the correct position on the shunting movement whilst executing shunting manoeuvres, i.e. in the draisine's cab rather than on the first wagon being pushed.
6) Start of the shunting movement by the draisine driver despite the shunting foreman not having given the signal to commence shunting.
7) Commencing of entry into the SPRT depot by the shunting movement despite the shunting foreman occupying an incorrect position on the shunting movement (in the draisine cab) and the presence of an obstruction on the track (a security guard walking between rails).
8) Performing the duties of the shunting movement driver whilst under the influence of alcohol.
9) Employing a security guard on active tracks despite a medical certificate of disability and the absence of medical examinations required for working on active tracks.
10) Performing activities involving the opening of entry gates for rolling stock by security staff at the SPRT depot, despite the absence of provisions in the contract concluded between the security agency and PKP Polskie Linie Kolejowe S.A. which would impose such an obligation on the contractor.

11) Failure to designate safe access routes for staff opening entry gates for rolling stock onto the SPRT depot premises.
12) Failure to exercise proper supervision over security staff operating within the SPRT depot premises.

**Systemic factors:**

*(means any causal or contributing factor of an organisational, managerial, societal or regulatory nature that is likely to affect similar and related occurrences in the future)*

1) Employing a person in a post directly related to the operation of rail traffic, who was performing the duties of a service and work train foreman, without the medical examinations required for that post, and issuing authorisation to carry out official duties.
2) Inadequate supervision under the safety management system of the infrastructure manager PKP PLK S.A.:
   a. regarding the organisation of shunting operations at the SPRT depot,
   b. of employees performing shunting operations,
   c. regarding the validity of employees' medical examinations.
3) Performing shunting operations at the SPRT depot based on outdated provisions of the Technical Regulations for Wrocław Nadodrze Station and the Technical and Organisational Regulations for the Special Technical Rescue Train of the Railway Line Plant in Wrocław. Inadequate supervision of the updating of documents describing the organisation of work at the SPRT depot.
4) Inadequate supervision by PKP PLK S.A.'s Railway Line Plant in Wrocław of the process for certifying employees directly involved in the operation of railway vehicles and railway traffic safety, performed based on a certificate issued by a railway occupational medicine physician.

**Recommendations and their addressees:**

1) Authorised infrastructure managers, siding users and infrastructure managers exempt from the requirement to hold a safety authorisation and operating based on a safety certificate shall review the provisions of station technical regulations, special regulations, railway sidings' operating regulations and other internal regulations, with a view to designating and describing safe access routes to all locations where work is performed by staff moving within the railway premises.
2) Authorised infrastructure managers, siding users and infrastructure managers exempt from the requirement to hold a safety authorisation and operating based on a safety certificate shall ensure that station technical regulations, railway siding operating regulations and other special regulations are kept up to date, and that their provisions correspond to the actual situation.
3) Authorised infrastructure managers, siding users and infrastructure managers exempt from the requirement to hold a safety authorisation and operating based on a safety certificate shall strengthen supervision over the manner in which the infrastructure manager's staff perform shunting operations, including the briefing on shunting operations, taking up the correct position on the shunting movement, the correct use of shunting signals and monitoring the route of travel.
4) PKP PLK S.A. shall strengthen its supervision of compliance with the provisions of Instruction Ik-3 regarding checks on the sobriety of staff and the presence of substances with effects similar to alcohol, particularly those involved in the operation of railway vehicles.
5) PKP PLK S.A. will strengthen its supervision of the process for authorising staff to work, with respect to the validity of medical examinations.
6) Authorised infrastructure managers, siding users and infrastructure managers exempt from the obligation to hold a safety authorisation and

operating based on a safety certificate shall strengthen supervision over contractors performing work on their premises to eliminate cases of movement on active tracks by contractors' employees who do not hold the required authorisations, medical examinations and training covering the principles of safe work on and the hazards present on the premises managed by these entities, according to their internal regulations.

7) PKP PLK S.A. shall review the risk register and the procedures applied under the safety management system with respect to:
   a. the adequacy of the risk control measures applied to specific hazards,
   b. updating the risk register to include hazards arising from ineffective internal controls over the railway operations process,
   c. the accuracy of the description of the personnel management process regarding the supervision of the continuity of medical examinations for specific job roles.
8) During periodic briefings, PKP PLK S.A. shall remind employees of:
   a. the rules for notifying the Emergency Call Centre (emergency number 112), according to instruction Ir-8,
   b. the rules for performing control braking on trains set in motion by the infrastructure manager,
   c. the rules for shunting operations conducted by the infrastructure manager's staff, including guidance on occupying the correct position on the shunting movement, correctly signalling shunting manoeuvres and observing the route of travel.


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# II. INVESTIGATION AND ITS CONTEXT

## 1. Decision to initiate an investigation

Tadeusz Ryś, Chairman of the State Commision on Railway Accident Investigation (hereinafter referred to as the 'PKBWK' or the 'Commission'), issued Decision No. PKBWK.590.4.2025 dated 8 October 2025 to initiate an investigation into a serious accident which occurred on 6 October 2025 at 11.45 am at Wrocław Nadodrze station, track no. 209, turnout no. 205, km 161.089 of railway line no. 143 Kalety – Wrocław Popowice WP2. Considering this fact and the provisions of Article 28e(4) of the Act on Rail Transport (Journal of Laws of 2025, item 697, as amended), hereinafter referred to as the 'Act on Rail Transport', on 18 October 2025, the occurrence was reported to the European Union Agency for Railways (hereinafter referred to as the 'European Railway Agency' or 'ERA') and was recorded in its database under number PL-10736.

## 2. Motivation for the decision to establish an investigation

Based on an analysis of the circumstances of the occurrence and taking into account its nature, the Chairman of the PKBWK decided that the Commission's Investigation Team should initiate proceedings pursuant to Article 28e(3)(1) of the Act on Rail Transport, given the seriousness of the accident.

## 3. Scope and limits of the investigation including a justification thereof, as well as an explanation of any delay that is considered a risk or other impact to the conduct of the investigation or its conclusions

The investigation into the causal factors and circumstances of the occurrence was conducted pursuant to Section 28h(1) of the Act on Rail Transport, which, according to the provisions of Section 28f(3), does not determine guilt or liability.
There were no limits during the investigation that would have a negative impact on its course.

## 4. Aggregated description of the technical capabilities and the functions in the team of investigators

The Chairman of the Commission appointed the Investigation Team from among the standing members of the Commission with qualifications and competencies regarding the investigation concerned.

## 5. Description of the communication and consultation process established with persons or entities involved in the occurrence during the investigation and in relation to the information provided

The Chairman of the PKBWK, pursuant to Article 28h(2)(5) of the Act on Rail Transport, obliged the designated members of the railway commission to cooperate with the Investigation Team, based on a written undertaking addressed to their employers in letter No. PKBWK 590. 4.1.2025 dated 8 October 2025

On 5 November 2025, at the headquarters of the PKP PLK S.A. Railway Line Plant in Wrocław, the Chairman of the Commission formally handed over to the Commission's Investigation Team the documentation compiled by the railway commission.

# 6. Description of the level of cooperation offered by the entities involved

During the investigation, the level of cooperation with the representatives of the entities involved in the circumstances of the occurrence was standard and did not raise any reservations of the Investigation Team.

# 7. Description of the investigation methods and techniques as well as analysis methods applied to establish the facts and findings referred to in the report

Throughout the process aimed at clarifying the causes and circumstances of the occurrence, the Investigation Team relied on its own knowledge, experience and the findings it had reached.
The Team used their own documentation as well as documentation gathered by the railway commission, prosecutor's office and police.
Within the framework of the investigation, the Investigation Team applied inter alia the following methods:

- visual inspection of the occurrence scene,
- on-site inspections at the occurrence scene,
- interviews with staff involved in the occurrence,
- analysis of the documentation gathered,
- analysis of the data from the traction vehicle's journey parameter recorder pushing the shunting movement,
- analysis of video footage from CCTV cameras.

Below is a list of selected legal acts, rules and internal instructions used during the investigation.

**European Union legislation:**

1) Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation (OJ L 119, 4.5.2016, p. 1, as amended)).
2) Commission Implementing Regulation (EU) 2020/572 of 24 April 2020 on the reporting structure to be followed for railway accident and incident investigation reports (OJ L 132, 27.4.2020, p. 10).
3) Directive (EU) 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway safety (recast) (OJ L 138, 26.5.2016, p. 102, as amended).

**National legislation:**

1) The Act of 28 March 2003 on rail transport (Journal of Laws of 2025, item 1234, as amended).
2) The Act of 10 May 2018 on the protection of personal data (Journal of Laws of 2019, item 1781).
3) Regulation of the Minister of Infrastructure of 11 January 2021 on employees working in posts directly related to the operation and safety of rail traffic and to the operation of specific types of railway vehicles (Journal of Laws of 2024, item 780, as amended).
4) Regulation of the Minister of Infrastructure of 18 July 2005 on the general conditions for the operation of rail traffic and signalling (Journal of Laws of 2025, item 100, as amended).
5) Regulation of the Minister of Infrastructure of 1 December 2022 on train driver certificates (Journal of Laws of 2022, item 2680, as amended).
6) Regulation of the Minister of Infrastructure of 24 November 2022 on train driver licences (Journal of Laws of 2022, item 2574).
7) Regulation of the Minister of Infrastructure and Construction of 16 March 2016 on serious accidents, accidents and incidents in rail transport (Journal of Laws of 2016, item 369, as amended).

**Internal instructions of the railway infrastructure manager PKP PLK S.A.**

1) Ie-1 (E-1) Instruction on signalling operations,
2) Ir-1 Instruction on operating railway traffic.
3) Ir-8 Instruction on the handling of serious accidents, accidents and incidents in railway transport.
4) Ir-9 Instruction on the shunting technique.
5) Itw-1 Manual for train drivers and railway vehicle operators specialising in the operation of special railway vehicles not intended for autonomous travel on active railway tracks on PKP Polskie Linie Kolejowe S.A. railway lines.
6) Itw-3 Operating and maintenance manual for railway vehicle brakes.
7) Ik-2 Manual on railway traffic safety inspections.
8) Ik-1 Manual on the organisation and conduct of internal institutional audits at PKP Polskie Linie Kolejowe S.A.
9) Technical Regulations for Wrocław Nadodrze Station, hereinafter referred to as 'Wrocław Nadodrze Technical Regulations'.
10) Technical and Organisational Regulations for the Special Technical Rescue Train of the Railway Line Plant in Wrocław.

## 8. Description of the difficulties and specific challenges encountered during the investigation

Members of the Investigation Team did not encounter any difficulties or problems that could have impact on the course, timeliness or conclusions of the investigation.

## 9. Any interaction with the judicial authorities.

The Chairman of the PKBWK submitted a letter, ref. PKBWK.590. 4.4.2025, dated 23 October 2025, to the District Public Prosecutor's Office for Wrocław Psie Pole in Wrocław, to provide access to the documents gathered during its investigation in connection with the occurrence that were relevant to establishing the circumstances and causal factors of the occurrence. On 28 October 2025, the District Public Prosecutor's Office for Wrocław Psie Pole in Wrocław granted access to the requested documents from the proceedings conducted under reference number 4360-0.Ds.2368.2025.

## 10. Other information important for the investigation

The PKBWK investigation team established that on 16 December 2024, the infrastructure manager PKP PLK S.A. concluded with Wolf Służba Ochrony Sp. z o.o. (hereinafter referred to as the Wolf Security Agency) Contract No. 61/208/0076/24/2/0 (hereinafter referred to as the "Contract") for the physical security of, amongst other things, the SPRT depot in Wrocław. This Contract came into force on the date of signing, that is, 16 December 2024. The Contractor was obliged to provide services for a period of 12 months from the date of signing the Contract. On 30 January 2025, the Wolf Security Agency submitted a request to PKP PLK S.A. to independently train its staff on health and safety risks when performing work on the premises of PKP Polskie Linie Kolejowe S.A., the Railway Line Plant in Wrocław. On the same day, a designated employee of the Wolf Security Agency signed a declaration stating that the employees had been made aware of the health and safety requirements for work performed on the premises of PKP PLK S.A., and that they have the required authorisations and qualifications, up-to-date medical examinations and occupational health and safety (OHS) training, had been provided with work clothing, footwear and personal protective equipment, and had been made aware of the occupational risks associated with the performed work. It is not explicitly clear from the documents provided that the employer issued a high-visibility vest to the employee. PKP PLK S.A.'s consent for the requested training to be conducted independently was granted on 7 February 2025, and the reply to the Wolf Security Agency was sent on 10 February 2025.

# III. DESCRIPTION OF THE OCCURRENCE

## 1. Occurrence and background information

### 1.1. Description of the type of occurrence

Upon arrival at Wrocław Nadodrze station at 11.36, the driver of train ZUS 669226 began manoeuvring (pushing the train) from behind the Tm20 shunting signal towards track No. 209 of the SPRT depot, where the used sleepers were to be unloaded. Upon reaching the closed gate at turnout No. 203, he waited for an employee of the Wolf Security Agency, who opened it. Once the gate had been opened, the driver began to enter track No. 209, despite the fact that the conditions for proper observation of the route had not been met and despite the absence of the shunting foreman at the head of the train being pushed. The driver's visibility was obstructed by the load on the flat wagons. Whilst entering the SPRT depot from beneath the gate onto track No. 209, at turnout No. 205, the train struck a security agency employee who, after opening the gate, was walking between the rails (on the track centerline) where the shunting manoeuvres were taking place. As a result of the collision, the security agency employee died at the scene. During the investigation, considering the impact of the occurrence on the Safety Management System and the presence of systemic factors, the Investigation Team decided to reclassify the occurrence as a serious accident.

### 1.2. Date, exact time and location of the occurrence

The occurrence took place on 6 October 2025 at 11.45 am at Wrocław Nadodrze station, at the SPRT depot, at kilometre 161.089, track No. 209, turnout No. 205, railway line No. 143 Kalety – Wrocław Popowice WP2.

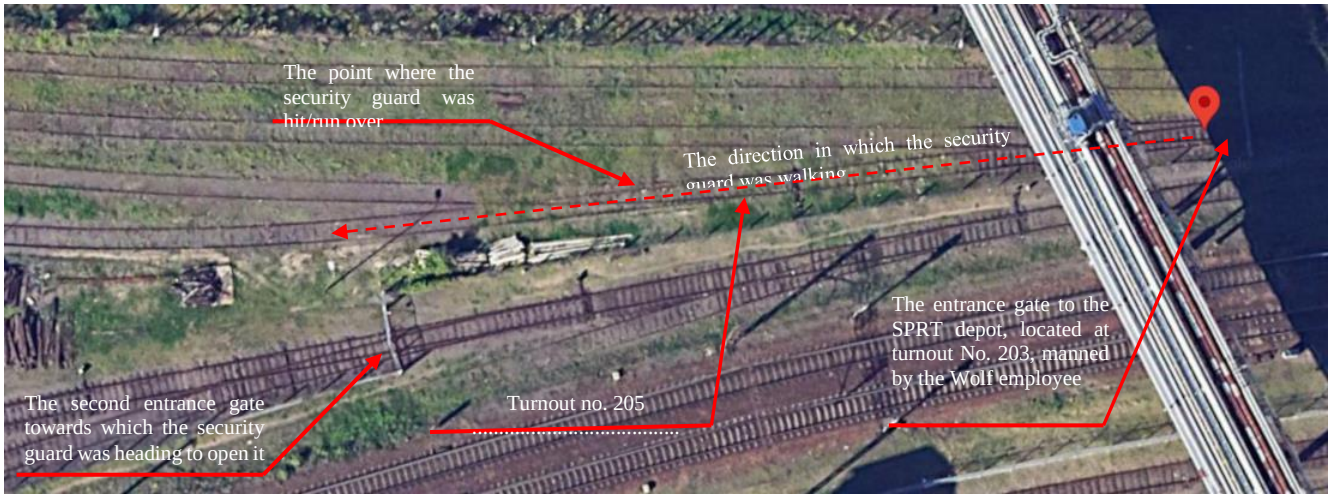



Figure 1. Location of the entrance gate to the SPRT depot and the scene of the accident

### 1.3. Description of the scene, including the meteorological and geographical conditions at the time of the occurrence and any work conducted at or near the scene

The group of tracks numbered 209, 211, 213 and 215, towards which the shunting movement was heading, is located at Wrocław Nadodrze station. The geographical coordinates of the serious accident site are 51°07'35.3'N 17°01'31.8'E. The approach to this group of tracks is along a curve, resulting in restricted visibility, particularly when pushing shunting movements. At the time of the accident, weather conditions were changeable, with overcast skies and intermittent rain. The outside temperature was 10°C. No work was in progress on the railway

infrastructure close to the shunting movement.

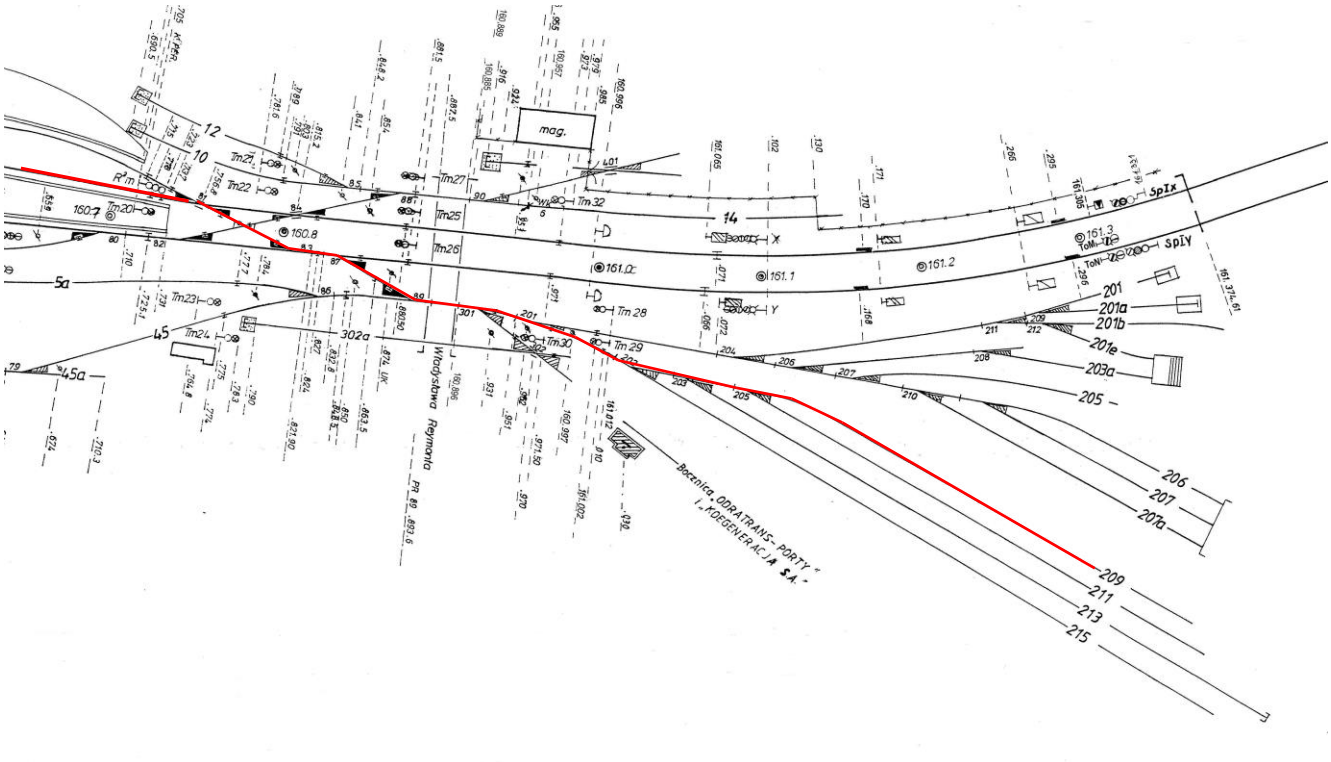



Figure 2. The route of a shunting manoeuvre at Wrocław Nadodrze station




Figure 3. The gate in front of which the shunting movement stopped

## 1.4. Fatalities, injuries and material damage

### a) passengers, staff or subcontractors, level crossing users, trespassers, other persons on the platform, other persons not on the platform

As a result of the occurrence, a security agency employee died at the scene.
No injuries were sustained by the railway infrastructure manager's staff.

### b) cargo, luggage and other property

Not applicable.

### c) rolling stock, infrastructure and the environment

There was no damage to rolling stock, infrastructure or the environment.

## 1.5. Description of other consequences, including the impact of the occurrence on the normal operations of the organisations involved

The occurrence had no impact on train services.

## 1.6. Identification of individuals, their roles and the organisations involved, including any links to contractors or other relevant parties

The Investigation Team identified the following individuals as being directly involved in the occurrence:
- train driver, ZUS 669226 – an employee of PKP PLK S.A.,
- Shunting foreman, ZUS 669226 – an employee of PKP PLK S.A.,
- an employee of the security agency providing services to PKP PLK S.A.,
- employees of the infrastructure manager undergoing training to become train drivers.

## 1.7. Description and identifiers of trains and their composition, including associated rolling stock and registration numbers

No list of vehicles in the train formation was drawn up for train ZUS 669226 on the Wrocław Główny – Wrocław Nadodrze route.
The shunting movement consisted of:

1. a hydrostatic-drive railcar (hydrostatic draisine), type DH-350.11-15, year of manufacture 2016, certificate of return to service No. ILK-UPN35/064/2024 dated 4 November 2024, valid until 31 October 2025. P2 performed on 4 November 2024
2. technical and service wagons:
   a) type 4Z, year of manufacture 1960, authorisation for operation T/2011/0534 dated 22 July 2011, valid indefinitely, railway vehicle identifier PL-PLK99519550111-0, return to service No. ILK-UPN35/012/2025, P2 performed on 15 May 2025.
   b) type 4Z, year of manufacture 1956, authorisation for operation T/2011/0534 dated 22 July 2011, valid indefinitely, railway vehicle identification number PL-PLK99519550110-2, return to service No. ILK-UPN35/058/2025, P2 inspection performed on 2 October 2025.
   c) type 4Z, year of manufacture 1960, authorisation for operation T/2011/0534 dated 22 July 2011, valid indefinitely, railway vehicle identification number PL-PLK99519550109-4, return to service No. ILK-UPN35/013/2025, P2 inspection performed on 16 May 2025.

ZUS 669226 train data:

| | |
|---|---|
| – train length | 112 m |
| – total train mass | 90 tonnes |
| – percentage of required braking mass | 44% |
| – percentage of actual braking mass | 77% |
| – required braking mass | 40 tonnes |
| – actual braking mass | 69 tonnes |

## 1.8. Description of the relevant infrastructure and signalling components – track type, railway point/switch, interlocking system, signal, train protection systems

1) Track 209:

| | | |
|---|---|---|
| rail type | – | S49 - year 1980 |
| sleepers | – | wooden |
| fastening type | – | indirect type K |
| ballast type | – | crushed stone, 25 cm |
| speed | – | 15 km/h |

2) Turnout no. 205:

| | | |
|---|---|---|
| turnout type | – | standard right-hand S49 - 1:9 - 190 |
| turnout sleepers | – | wooden |
| fastening type | – | K |
| ballast type | – | crushed stone, 25 cm |
| year of manufacture and installation | – | 1983 |

3) The Wrocław Nadodrze station and the SPRT depot constitute a single shunting area. The SPRT depot includes a group of station tracks: 201, 201a, 201b, 201e, 203a, 205, 206, 207, 207a, 209, 211, 213 and 215. However, the documents describing the organisation of work at the SPRT depot – namely the Wrocław Nadodrze Technical Regulations and the SPRT Technical Regulations – do not include all the tracks forming part of the depot. Entry to the SPRT depot is permitted only after receiving the 'shunting permitted' signal displayed on a semaphore: R, P1, P3 or a shunting signal: Tm20, Tm23, Tm24. The shunting foreman is responsible for directing shunting operations. The shunting foreman determines when to commence and terminate shunting operations on a case-by-case basis. The SPRT depot is fenced off, monitored by CCTV cameras and guarded by a security agency employee. A shunting movement may enter the depot through one of the four gates. Turnouts within the depot are operated manually. Departure from the SPRT depot is permitted only after the 'shunting permitted' signal appears on the Tm28 or Tm29 shunting signal. Every departure from the SPRT depot must be agreed with the duty traffic controller at Wrocław Nadodrze station.

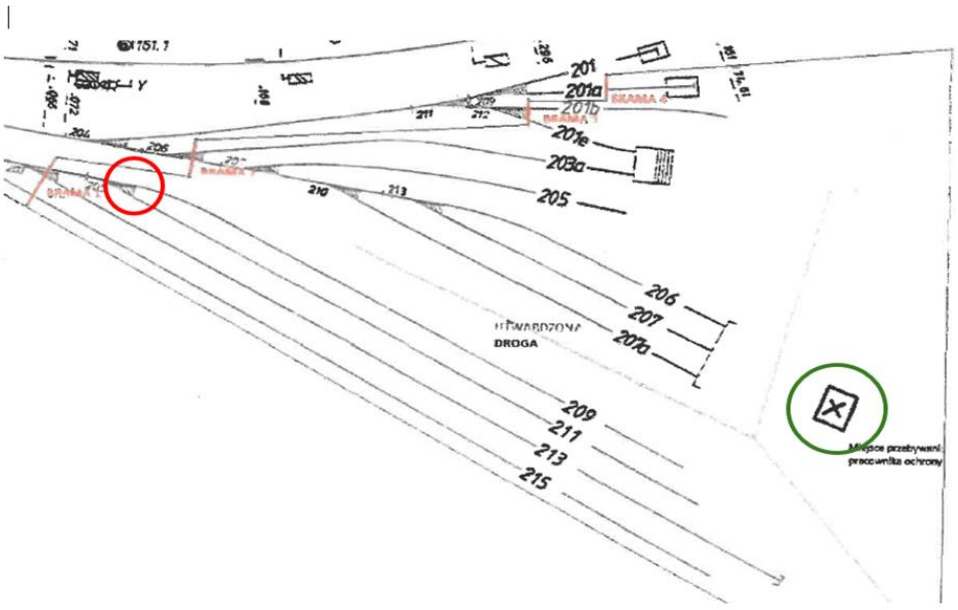



Figure 4. Diagram of the SPRT depot (red: accident site; green: security guard's post)

### 1.9. Any other information relevant to the description of the occurrence and the basic information

The group of tracks onto which the shunting movement was entering was not included in the Wrocław Nadodrze Technical Regulations. The SPRT Organisational and Technical Regulations also did not include, amongst others, track groups numbered 209, 211, 213 and 215. It was clear from the contract concluded between PKP PLK S.A. and the Wolf Security Agency that security staff were not responsible for opening and closing railway gates, and that they performed these tasks as part of good cooperation. Furthermore, PKP PLK S.A. had not designated safe access routes to the entry gates for rolling stock.

## 2. Fact-based description of events

### 2.1. The sequence of events leading up to the occurrence, including actions taken by the persons involved; the operation of rolling stock and technical installations; the operation of the control system

On 6 October 2025 at 11:24, train ZUS 669226 departed from Wrocław Główny station and bound for Wrocław Nadodrze station. The train crew consisted of a driver and a foreman of the service and work train. There were also two PKP PLK S.A. employees in the traction vehicle's cab, who were undergoing vocational training prior to their train driver's licence examination. The train consisted of a DH350.11-15 hydrostatic-drive railcar (hydrostatic draisine) and three technical and service wagons, converted from 4Z-type flatbed wagons. The wagons were carrying used sleepers, which were to be unloaded at the SPRT depot at Wrocław Nadodrze station, and a backhoe (digger) loader fitted with a loading grab. A technical/service container was positioned on the last wagon. The train travelled 7 km at a speed not exceeding 54 km/h. At 11.36, the train arrived at Wrocław Nadodrze station, was directed onto track 2, next to platform 2, and stopped behind the Tm20 shunting signal. Before reaching the destination station, the foreman of the service and work train used a mobile phone to contact a security agency employee who was on the SPRT depot and asked him to open the gate and allow the shunting movement to enter track No. 209. The shunting operations at the SPRT depot should have taken place as follows: PKP PLK S.A. staff were to unload the used sleepers that had been delivered onto Track No. 209, and then leave the depot towards the platforms at Wrocław Nadodrze station, drive to the other side of the depot and, once a Wolf security guard had opened the second entrance gate (located at turnout No. 206), re-enter the SPRT depot to load turnout components. The SPRT depot premises were fenced off and monitored round the clock by CCTV and a security agency employee who provided services to PKP PLK S.A. under contract. At 11:36, the train dispatcher (signaller) on duty at Wrocław Nadodrze station displayed signal Ms 2 'Shunting permitted' on shunting signal Tm20. Eighteen seconds after the ZUS 669226 train had stopped, the driver changed direction and began pushing the train towards the SPRT depot at a maximum speed of 15 km/h. The foreman of the service and work train, who was supposed to take his place on the last wagon (the first in the direction of the shunting movement) whilst the train was being pushed, was in the cab of the draisine. Whilst pushing the train towards the SPRT depot, the driver's field of vision included a backhoe loader on the second wagon and a technical container on the third wagon (the first in the direction of pushing). The view from the driver's cab in the direction of travel is shown on Figure 5, and the composition of the shunting train is shown on Figure 6.



Figure 5. View from the cab of a traction vehicle pushing a shunting movement in the direction of travel




Figure 6. Overview of the shunting movement

After travelling 383 metres, the shunting movement stopped at 11.39 am in front of a closed gate, behind which lay, amongst others, tracks nos. 209, 211, 213 and 215. At that time, an employee of the Wolf Security Agency left the security post located at the entrance gate for road vehicles in order to open the gate for the shunting movement. The employee was walking in the axis of active track No. 209 without a high-visibility vest, as confirmed by CCTV footage.



Figure 7. Recorded movement of a security agency employee walking towards the entrance gate at turnout No. 203

PKP PLK S.A. had not marked out safe access routes to the entry gates of the SPRT depot. Security agency staff who opened the entry gates moved around the depot grounds, including on active tracks, without any restrictions. The contract between PKP PLK S.A. and the security agency contained no provisions obliging staff monitoring the SPRT depot to operate the entrance gates. At 11.44, a Wolf Security Agency employee, having opened the gate located at turnout No. 203, turned round and, walking between the rails of track No. 209, headed towards the gate at turnout No. 206. At that moment, the shunting movement set off and began moving towards track No. 209. The driver started moving the train, even though the foreman of the service and work train was in the cab of the draisine and not on the first wagon being pushed. Whilst the train was moving, a security agency employee was struck at turnout No. 205.



Figure 8. Walking direction of the security guard after opening the gate at turnout no. 205. At the bottom, an approaching shunting movement with a platform loaded by a technical/service container

At 11.45, after travelling 157 metres, the shunting movement stopped on track No. 209. It was only after the shunting movement had stopped that the four people in the draisine cabin – namely the driver, the foreman of the service and work train, and two trainees – noticed that the body of a Wolf Security Agency employee was lying on turnout No. 205.



Figure 9. The staff of the draisine are heading towards the casualty

Figure 9 shows three PKP PLK S.A. employees who got off the draisine after it had stopped on track No. 209. A fourth person is standing on the draisine's platform.

## 2.2. The chain of events from the occurrence until the end of the actions of the rescue services, including measures taken to protect and safeguard the site of the occurrence, the efforts of the rescue and emergency services.

After the shunting movement had entered and stopped on track No. 209, the staff in the draisine's cab realised that they had not passed the security guard and that he was not within their field of vision, so they began to search for him. Upon spotting the body of the Wolf security guard, which was lying at turnout No. 205, four people alighted from the draisine cab. Three of them made their way to the vicinity of turnouts No. 205. The foreman of the service and work train notified his superior about the accident. At 12.06, the SPRT depot manager notified the 112 operator about the occurrence. An ambulance arrived at the scene of the accident at 12.15 and confirmed that the victim had died. At 12:17, officers from the Wrocław Psie Pole Police Station arrived at the scene. Following the accident, the driver underwent a breath test for alcohol. At 13:07, a breathalyser test showed a reading of 0.27 mg/l of ethyl alcohol. The other people in the driver's cab were not tested for alcohol. The emergency services' operations at the scene of the accident ended at 17:33. The occurrence took place on a closed railway site and there was no need to cordon it off from unauthorised persons.

The fact that a long period of over 20 minutes elapsed between the accident and the moment the foreman of the service and work train notified his line manager, who then notified the 112 operator, and the fact that the 112 operator was notified without going through the duty controller at Wrocław Nadodrze station, was assessed by the investigation team as a separate irregularity that did not contribute to the occurrence of the serious accident.

# IV. ANALYSIS OF THE OCCURRENCE

## 1. Roles and responsibilities of the various parties involved in the occurrence

### 1.1 Railway undertaking(s) or infrastructure manager(s)

Infrastructure manager PKP PLK S.A. Railway Line Plant in Wrocław

The railway infrastructure manager has established an SPRT depot, which is located at Wrocław Nadodrze station. The railway infrastructure manager has set out the rules governing the operation of the depot in the Wrocław Nadodrze Technical Regulations and the SPRT Organisational and Technical Regulations. In practice, the depot included a group of station tracks: 201, 201a, 201b, 201e, 203a, 205, 206, 207, 207a, 209, 211, 213 and 215. Despite this, the Wrocław Nadodrze Technical Regulations did not include these tracks in its list of station tracks, whilst the SPRT Technical Regulations stated that the SPRT depot includes tracks 203a, 205, 206, 207 and 207a. Neither the Wrocław Nadodrze Technical Regulations nor the SPRT Technical Regulations set out detailed rules for carrying out shunting operations at the SPRT depot, including rules for notifying the need to open gates to allow a shunting movement to enter the depot; nor did they specify which staff members were responsible for opening and closing the entrance gates for railway vehicles.

The Investigation Team identified this circumstance as a contributing factor to the serious accident.

The Wrocław Nadodrze Technical Regulations database was updated on 10 October 2025 and 24 October 2025, that is, only after the serious accident. Among other things, the list of tracks at Wrocław Nadodrze station forming part of the SPRT depot was updated. Furthermore, on 28 January 2026, a further amendment was made to the Wrocław Nadodrze Technical Regulations, namely to plot 51, in which persons responsible for operating all entry gates to the SPRT depot were designated and safe access routes were identified. This amendment implemented the recommendations of the State Labour Regional Inspection in Wrocław (hereinafter 'PIP'), issued following PIP inspections conducted in October and November 2025, and in January and February 2026.

Based on this, the investigation team decided not to issue any recommendations in this respect.

The railway infrastructure manager prepared and implemented a plan for internal inspections. The documentation provided shows that, with respect to the supervision of operations at the SPRT depot, the only inspections performed covered the completeness and validity of documents confirming the qualifications of draisine drivers, as well as the validity of records relating to technical inspections of railway vehicles carried out at the depot. None of the audits involved verifying the validity of the provisions of the SPRT Technical Regulations. Furthermore, the audits verifying the provisions of the Wrocław Nadodrze Technical Regulations, in relation to the supervision of operations at the Wrocław Nadodrze station, did not reveal any outdated provisions of the regulations concerning the functioning of the SPRT depot, despite this area being included within the scope of the individual audits. Nor did the inspections cover the manner in which shunting movements were carried out whilst moving shunting trains within the Wrocław Nadodrze station, or the manner in which employees of external entities (e.g. employees of the Wolf Security Agency) had to move around the SPRT depot, even though the scope of the inspections included the verification of work discipline and the supervision of the safety of railway operations at the Wrocław Nadodrze station. The Investigation Team considered this circumstance to be a contributing factor to the occurrence.

### 1.2 The entities in charge of maintenance, the maintenance workshops, or any other maintenance suppliers

The entity responsible for the maintenance of the railway vehicles involved in the accident was PKP PLK S.A. Based on the evidence gathered, the investigation team found no link between the entity responsible for maintenance and the occurrence.

### 1.3 Manufacturers of rolling stock or other suppliers of rail products

Based on the evidence gathered, the investigation team found no link between the rolling stock manufacturers and service providers and the occurrence.

### 1.4 National safety authorities or the European Union Agency for Railways

The President of the Office of Rail Transport (UTK) is responsible for supervising railway safety. Based on the evidence gathered, the investigation team found no link between the national safety authority and the occurrence under investigation.

### 1.5 Notified bodies, designated bodies or risk assessment bodies

Based on the evidence gathered, the investigation team did not identify any link between the notified bodies and the risk assessment bodies and the accident.

### 1.6 Certification bodies of entities in charge of maintenance mentioned in sec. 1.2.

Based on the research material gathered, the investigation team found no link between the certification body of the entity responsible for maintenance and the occurrence under investigation.

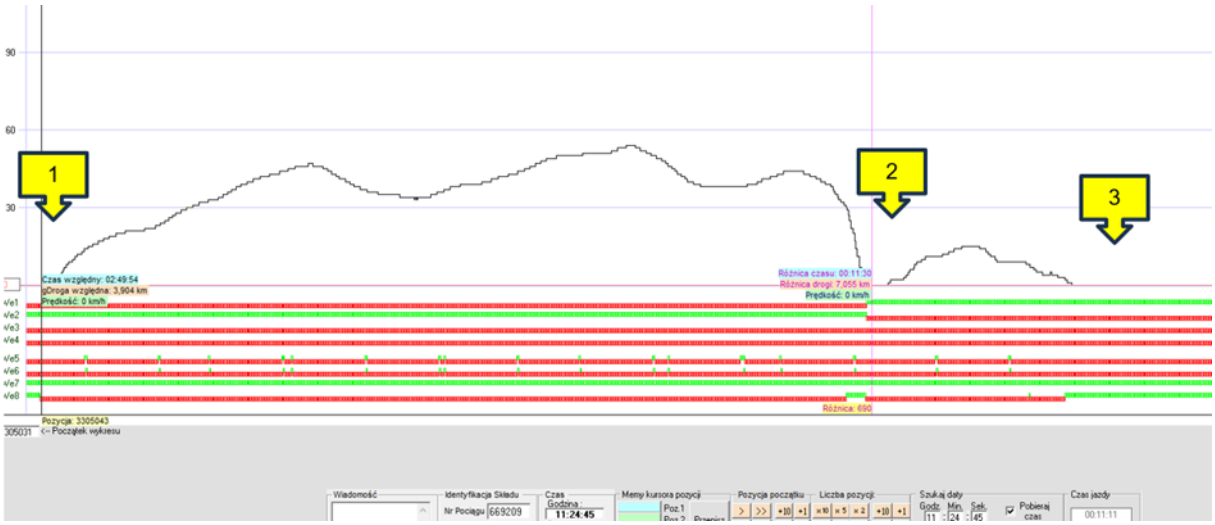
### 1.7 Any other persons or entities connected with the occurrence in question, as may have been documented in one of the relevant safety management systems, or referred to in the register or in the relevant legal framework

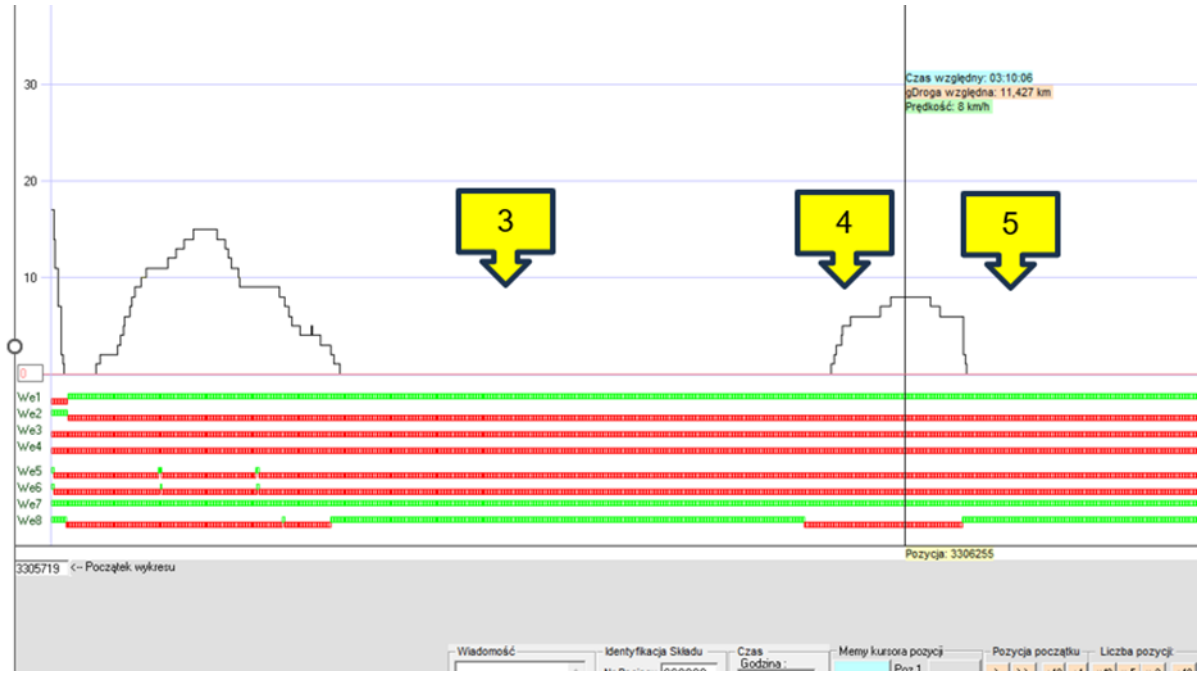
Physical security at the SPRT depot was provided by the Wolf Security Agency. This company provided security for the SPRT depot under a contract concluded with PKP PLK S.A. In the aforementioned contract, the infrastructure manager reserved the right to monitor the contractor's performance of the contract under which it provided physical security for the SPRT depot. In addition, the infrastructure manager's safety management system includes procedure SMS – PW – 12 'Cooperation with suppliers and contractors' concerning the supervision of contractors. The infrastructure manager did not provide any document confirming that checks had been carried out on the contractor responsible for physical security. Furthermore, as part of the inspections performed by the Wrocław Managing Authority according to the inspection plan, the manner in which the contractor's staff moved around the SPRT depot was not verified. Nor did the inspections reveal that employees of the Wolf Security Agency were carrying out activities without a contract, namely opening and closing the entrance gates to the depot, nor did they reveal that this activity was not regulated in the Wrocław Nadodrze Technical Regulations or the SPRT Technical Regulations. Furthermore, despite the aforementioned contract for the physical security of the SPRT depot coming into force on 16 December 2024, a representative of the Wolf Security Agency did not apply until 30 January 2025 for permission to conduct in-house training for staff covering the rules for safe working on railway premises and the hazards present on the premises of PKP PLK S.A. Such permission was only granted on 7 February 2025, whilst this decision was communicated to the Wolf Security Agency on 10 February 2025. Despite this, on 30 January 2025, a representative of the Wolf Security Agency drew up a statement indicating that the agency's staff had been trained in the above-mentioned areas. This is contrary to instruction Ibh-105. The infrastructure manager failed to ensure that, upon the entry into force of the Contract for the physical security of the SPRT depot, the contractor's staff were trained according to the internal regulations of PKP PLK S.A., and also failed to respond to the prolonged duration of the Contract's implementation despite the absence of such training.
The investigation team interpreted the above circumstance as another irregularity having no impact on the course of the occurrence.

## 2. Rolling stock and technical installations

The DH350.11-15 hydrostatic-drive railcar (hydrostatic draisine) is a special-purpose railway vehicle designed for the maintenance, repair or construction of railway infrastructure. It is equipped with its own internal combustion engine and consists of a single carriage and two axles. It was manufactured by ZPS sp. z o.o. in 2016. The vehicle was granted a certificate of authorisation for operation No. T/2012/2015 dated 24 January

2012, valid indefinitely. Railway vehicle identification number: PL-PLK99519283008-2. A railway crane with a maximum lifting capacity of 8 tonnes has been fitted to the draisine. An electronic tachograph of the TXXXP-mp type, serial number 16/500, manufactured by the Łukasiewicz Research Network – Industrial Institute for Automation and Measurements (PIAP), has been fitted to the vehicle. The research team, in cooperation with the manufacturer of the recording device, analysed the running parameters to examine the running characteristics of the train and the shunting movement.




The following are marked on the diagrams:

- No. 1 – departure of train No. 669226 from Wrocław Główny station at 11:24;
- No. 2 – arrival at Wrocław Nadodrze station at 11:36 and the starting of maneuvering by the shunting movement towards the SPRT depot;
- No. 3 – the shunting movement's waiting time for the entrance gate to open;

- No. 4 – the start of entry into the SPRT depot at 11:44;
- No. 5 – the shunting movement stopped at the SPRT depot at 11:45.

The electronic tachograph fitted to the vehicle records 8 signals:

We 1 Activation of control from cab 1
We 2 Activation of control from cab 2
We 3 Deactivation of SHP (Butterflies on the 20ZH panel)
We 4 Radio-Stop activation
We 5 CA-SHP lights activation
We 6 Vigilance button pressed
We 7 Emergency brake valve activation
We 8 Pressure in the brake cylinders

The green colour indicates a high state; for channels 1, 2, 3, 4, 5, 6 and 8, this signifies that the signal has been triggered, whilst the red colour indicates a low state, which is the normal state for these signals.
In the case of channel 7, the situation is the reverse: for this channel, the normal state is high (green), and a drop in voltage (a change to red) indicates activation.

After analysing the driving parameters, the investigation team concluded that the driver of train ZUS 669226 failed to perform a test braking manoeuvre after departing from Wrocław Główny station at 11:24. Having travelled 7.05 km at a maximum speed of 54 km/h, he arrived at Wrocław Nadodrze station at 11:36. Eighteen seconds after stopping at Wrocław Nadodrze station, he began manoeuvring towards the SPRT depot at a speed not exceeding 15 km/h. After a security guard opened the gate, at 11.44 he began entering track No. 209 at a speed not exceeding 8 km/h. After travelling 157 m, the train stopped on track No. 209.

A test braking manoeuvre, as specified in Itw-1, §16, point 1, and Itw-3, §23, paragraph 2, points 1 and 2, must be executed after every brake test and after the train departs from the starting station.
The investigation team notes the absence of a test braking manoeuvre as a further irregularity which did not contribute to the accident.

# 3. Human factors

## 3.1. Human and individual characteristics

The driver of the shunting movement's traction unit was an experienced employee. He had 41 years' service as a driver. He held a valid medical certificate and the required documents confirming his qualifications. Sobriety tests conducted by the police at the scene of the accident showed that he was under the influence of alcohol at the time of the occurrence. Whilst performing shunting operations, he communicated incorrectly with the shunting foreman, with the result that he set the shunting movement in motion despite the shunting operation not having been properly discussed, the absence of a signal authorising the start of the shunting manoeuvre, and without ensuring that there were no obstacles to carrying out the manoeuvre. Although the shunting foreman was not in position on the first wagon being pushed, the driver proceeded with the shunting manoeuvre at a maximum speed of 15 km/h.
The shunting foreman, employed as a manager of service and work trains, was an employee with 28 years' service. He did not hold a valid medical certificate for the post he held. On the day of the accident, he failed to properly discuss the shunting operation with the driver, did not take up the required position at the front of the shunting movement being pushed, and did not ensure that there were no obstacles preventing the start of the shunting manoeuvre. Despite failing to give the driver the signal authorising the shunting manoeuvre, he did not react when the driver set the shunting movement in motion, nor did he properly monitor the shunting movement's route.
Of the staff involved in the occurrence, only the driver was tested for sobriety.

Furthermore, there were two staff members in the cab of the traction vehicle pushing the shunting movement who were undergoing training for their driver's certificate. Their role was to observe the driver's work and had no bearing on the course of the accident.

After opening the entrance gate to the SPRT depot, a security agency employee turned away from the shunting movement and walked between the rails of track No. 209. He was not wearing any personal protective equipment (including a high-visibility vest). He had a Group II disability due to a significant visual impairment.

The employer stated that the security staff assigned to execute the Contract had been briefed on the health and safety requirements for work carried out on the premises of PKP PLK S.A., held the required authorisations and qualifications, up-to-date medical examinations and occupational health and safety (OHS) training, had been provided with work clothing, footwear and personal protective equipment, and had been made aware of the occupational risks associated with their work. The scope of the training is unknown, including whether it covered the risks arising from staff moving around railway premises and from working on active tracks. The contract concluded between PKP PLK S.A. and the Wolf Security Agency did not provide for security staff to move between the rails of active tracks or to operate the entry gates to the SPRT depot.

The security guard was moving between the rails of active tracks despite having a Group II disability (significant visual impairment). The employer presented a medical certificate following periodic medical examinations for the post of security guard, issued by a general occupational health service. The post held by the victim of the serious accident is not covered by the Regulation of the Minister of Infrastructure of 11 January 2021 on employees working in posts directly related to the operation and safety of rail traffic and to the operation of specific types of railway vehicles, which means that an employee who did not possess health qualifications equivalent to those required for railway posts was carrying out duties on active railway tracks.

## 3.2. Job factors

The DH-350.11-15 railway vehicle was authorised for operation on the Polish railway network. On the day of the accident, this vehicle was pushing a shunting movement comprising three type 4Z two-axle flat wagons, the first of which, in the direction of travel, was loaded with a technical container, whilst the second, also in the direction of travel, was loaded with a Waryński backhoe loader. These conditions meant that the driver had no visibility of the track ahead; hence, it was particularly important for the shunting foreman to occupy the required position at the front of the shunting movement being pushed.

On the day of the accident, the security guard was not wearing protective clothing, namely a high-visibility vest, or safety footwear. The employee was performing tasks arising from the contract concluded between PKP PLK S.A. and the Wolf Security Agency. Under this contract, security staff were not responsible for operating the entry gates at the SPRT depot. These duties were performed voluntarily in the spirit of good cooperation with PKP PLK S.A.

## 3.3. Organisational factors and assignments

The rules governing shunting operations at the SPRT depot were not set out in the Wrocław Nadodrze Technical Regulations or in the SPRT Technical Regulations. Instead, the general rules for shunting operations set out in instruction Ir-9 applied. Consequently, with respect to the organisation of work at the SPRT depot, PKP PLK S.A. had failed, amongst other things, to specify detailed rules for notifying the SPRT depot about the approach of the shunting movement and had not designated persons responsible for opening and closing the entrance gates. Nor were rules laid down for communication between PKP PLK S.A. staff and the security personnel supervising the SPRT depot. Such communication took place via mobile phones, and the timing of calls was left to the discretion of the individuals involved. The Wrocław Nadodrze Technical Regulations and the SPRT Technical Regulations did not cover all the tracks forming part of the depot. Despite carrying out internal audits, the infrastructure manager failed to identify this irregularity and did not update the aforementioned documents. The Wrocław Nadodrze Technical Regulations were only updated after the accident, on 10 October 2025 and on 24 October 2025. Following the update, this document did include all the tracks forming part of the SPRT depot, but it still did not specify the rules for performing shunting operations within the depot, the rules for communication between

staff carrying out activities within the depot, nor did it designate staff to operate the entrance gates. No update to the SPRT Technical Regulations was presented. The internal audits conducted by PKP PLK S.A. did not cover the manner in which shunting operations were carried out within the SPRT depot (despite the scope of certain audits covering the rules for the safe management of rail traffic at Wrocław Nadodrze station) or work discipline within the depot, including the use of personal protective equipment by PKP PLK S.A. staff and subcontractor staff. PKP PLK S.A. did not monitor the contractor's performance of the Contract, despite having such powers enshrined in the Contract. The Contract did not stipulate an obligation for Wolf Security Agency's employees to operate the entrance gates; rather, these tasks were carried out by them in the spirit of good cooperation.

The investigation team identified the improper organisation of shunting operations at the SPRT depot and the security guard's failure to exercise due care whilst working on active tracks as factors contributing to the accident.

### 3.4. Environmental factors

The investigation team concluded that environmental factors were not linked to the occurrence.

### 3.5. Any other factors relevant for the purpose of the investigation

Not applicable.

## 4. Feedback and control mechanisms, including risk and safety management as well as monitoring processes

### 4.1. The processes, methods, content and results of risk assessment and monitoring activities, performed by any of the involved actors: railway undertakings, infrastructure managers, entities in charge of maintenance, maintenance workshops, other maintenance providers, manufacturers and any other actors, and the independent assessment reports referred in Article 6 of Implementing Regulation (EU) No 402/2013

As part of the Safety Management System (SMS), the infrastructure manager PKP PLK S.A. maintains a Risk Register. In the context of the occurrence under analysis, the infrastructure manager identified the following risks, for which it formulated risk control measures and appointed persons responsible for monitoring the risk level of these risks:

| Risk No. | Risk description | Potential maximum consequences | Risk control measures | Person responsible for monitoring the level of risk |
|---|---|---|---|---|
| 7.1.3 | Failure to fulfil obligations in the medical examination process | Potentially hazardous situation | Compliance with instruction Ia-5<br>Compliance with the Company Collective Labour Agreement<br>Compliance with Regulation [7] and Regulation [14] | IPR, Director |
| 7.2.5 | Inappropriate allocation of tasks amongst staff members at the Operations Section level | Potentially hazardous situation | Compliance with the Company's Organisational Regulations | Head of ISE |
| 7.4.2 | Incapacity caused by the consumption of alcohol or other intoxicating substances | Accident | Drawing up and complying with the Work Regulations | Head of ISE<br>Station Master (by sector) |

| | | | | |
|---|---|---|---|---|
| | | | Compliance with the Ik-3 instruction | |
| 7.5.2 | Failure to comply with internal rules and regulations | Incident | Developing training programmes according to Ia-5<br>Conducting periodic briefings and examinations as per Ia-5 | Head of ISE<br>Station Master (by sector)<br>Rail carrier |
| 7.5.3 | Failure to fulfil obligations regarding the drawing up and implementation of the shunting plan | Potentially hazardous situation | Drawing up and complying with the Technical Regulations according to IR-3<br>Compliance with instructions IR-1 and IR-9 | Head of ISE<br>Station Master (by sector)<br>Rail carrier |
| 7.5.6 | Failure to fulfil obligations regarding proper communication during the execution of manoeuvres | Incident | Drawing up and complying with the Technical Regulations according to IR-3<br>Compliance with instructions IR-1 and IR-9 | Head of ISE<br>Station Master (by sector)<br>Railway carrier |
| 7.5.7 | Failure to fulfil duties regarding the use of shunting signals | Incident | Developing training programmes according to Ia-5<br>Conducting periodic briefings and examinations as per Ia-5<br>Compliance with instructions Ir-1, Ir-3, Ir-9, Ie-1 | Head of ISE<br>Station Master (by sector)<br>Rail carrier |
| 12.6.1 | Imprecise wording in the Technical Regulations | Accident | Compliance with the provisions of Instruction Ir-3<br>Monitoring the up-to-date and complete nature of technical and operational documentation | Head of the Passenger Operations and Infrastructure Department<br>Head of the Railway Tracks and Environmental Protection Department<br>Head of the Automation and Telecommunications Department<br>Head of the Energy Department<br>Head of the Energy Unit<br>Head of ISE |
| 12.6.2 | Technical Regulations drawn up contrary to the provisions of the Ir-3 Instructions on the drafting of technical regulations | Potentially hazardous situation | Compliance with the provisions of Instruction Ir-3<br>Monitoring the up-to-date and complete nature of technical | Head of the Passenger Operations and Infrastructure Department<br>Head of the Railway Tracks and |

| | | | | |
|---|---|---|---|---|
| | | | and operational documentation | Environmental Protection Department<br>Head of the Automation and Telecommunications Department<br>Head of the Energy Department<br>Head of the Energy Unit<br>Head of ISE |
| 12.6.3 | Errors in the Technical Regulations regarding the division of duties amongst staff within the station | Accident | Compliance with the provisions of Instruction Ir-3<br>Monitoring the up-to-date and complete nature of technical and operational documentation | Head of the Passenger Operations and Infrastructure Department<br>Head of the Railway Tracks and Environmental Protection Department<br>Head of the Automation and Telecommunications Department<br>Head of the Energy Department<br>Head of the Energy Unit<br>Head of ISE |

Legend:
Regulation [7] – Regulation of the Minister of Infrastructure of 11 January 2021 on employees working in posts directly related to the operation and safety of rail traffic and to the operation of specific types of railway vehicles – as currently in force
Regulation [14] – Regulation of the Minister of Infrastructure and Development of 3 April 2015 on health requirements, medical and psychological examinations, and the assessment of the physical and mental fitness of persons applying for a train driver's certificate or for its renewal – as currently in force

Furthermore, the risk register includes risks arising from cooperation with suppliers and subcontractors in relation to the construction, inspection, repair, refurbishment, modernisation and dismantling of railway infrastructure, as well as in relation to the maintenance of PKP PLK S.A.'s railway rolling stock. The risk register does not contain any identified risks related to cooperation with contractors and service providers other than those mentioned above, including the performance of work on active tracks without such an obligation being specified and without medical examinations to determine fitness to perform work on active tracks, as well as work carried out by persons holding a disability certificate.
At the same time, the risk register includes irregularities relating to the conduct of audits (e.g. the failure to include certain areas of the company's operations in the audit plan, the inadequate quality of internal audits, inappropriate post-audit recommendations in response to identified irregularities, and the failure to implement post-audit recommendations), however, these risks are listed in the individual sub-sections of the register concerning:
- day-to-day maintenance and repairs of railway track (Chapter 1 of the register),
- day-to-day maintenance and repairs of railway signalling equipment (Chapter 2 of the register),
- routine maintenance and repairs of traction and non-traction power supply systems (Chapter 3 of the register),
- routine maintenance and repairs of tunnels and engineering structures – bridges, viaducts, culverts, footbridges over tracks and other structures (Chapter 4 of the register),
- level crossings and pedestrian crossings at track level (Chapter 5 of the register),
- railway vehicles (Chapter 6 of the register),
and do not relate to the general system of internal controls implemented at PKP PLK S.A. Such risks were not identified, amongst other things, in Chapter 7 of the register concerning railway personnel, which covers

risks arising from the incorrect execution of the railway traffic management process (including train and shunting operations).

## 4.2. The safety management system of the involved railway undertakings (including rail carriers), siding users and railway infrastructure managers, including the basic elements specified in Article 9(3) of Directive (EU) 2016/798 and any EU implementing acts

PKP PLK S.A. has developed, as part of its safety management system, and applies procedure SMS-PW-12 'Cooperation with suppliers and contractors'. The investigation team has no reservations regarding the manner in which the aforementioned procedure was implemented in the context of the occurrence in question.

PKP PLK S.A. has drawn up and applies procedure SMS-PW-08 as part of its safety management system. Paragraph 8 of the aforementioned procedure, in the chapter concerning the recruitment process, specifies the scope of medical examinations required, according to general regulations, for individual railway posts. Point 3 of this paragraph states that 'the organisational unit responsible for personnel matters determines the type of medical examinations for an employee or job applicant by issuing a referral for initial medical examinations and psychological assessments of professional suitability'. The procedure does not specify which unit is responsible for issuing referrals and supervising examinations in the case of periodic medical examinations, nor for ensuring the continuity of such examinations and the correctness of the referrals issued in relation to the post in which the employee is employed. In the occurrence under review, the foreman of a service and work train held a medical certificate authorising him to perform duties as a mechanic and maintenance technician for rail vehicles until 16 January 2027, following examinations conducted on 16 January 2025. The certificate stated that the employee should wear hearing protection whilst working in noisy environments. The certificate was issued by an occupational medicine physician at the Railway Occupational Health Centre in Wrocław based on a referral for periodic medical examinations dated 27 December 2024 for the post of mechanic and rail vehicle maintenance technician, drawn up by PKP PLK S.A., Railway Line Plant in Wrocław, Wrocław Główny Operations Section, Deputy Head of the Traffic Engineering Section. The referral did not specify that the employee will perform duties as a foreman of service and work trains. In the section of the referral concerning the description of working conditions and the presence at the workplace of factors that are dangerous or harmful to health, as well as factors causing discomfort, it was not stated that the employee will perform, amongst other things, work on active tracks, work on the overhead contact line or work on surfaces at different levels. No medical certificate authorising the employee to perform the duties as a foreman of service and work trains was provided. Despite this, on 31 March 2025, authorisation No. 235/2025 to perform the duties as a foreman of service and work trains was issued.

PKP PLK S.A. has developed, as part of its safety management system, and applies the SMS/MMS-PD-04 procedure entitled 'Monitoring and continuous improvement of the Safety Management System and the Maintenance Management System'. The aim of the procedure is to 'identify at the earliest possible stage:

1) any non-conformities in the operation of the Safety Management System and the Maintenance 1) any non-conformities in the operation of the Safety Management System and the Maintenance Management System which have a negative impact on safety, in particular those which may result in major accidents, accidents, incidents, situations posing a risk of the aforementioned occurrences, or other hazardous situations;

2) areas for potential improvement in the Safety Management System and the Maintenance Management System.'

The documents related to the procedure are the Instructions on the organisation and conduct of internal institutional control at PKP Polskie Linie Kolejowe S.A. (Ik-1), the Instructions on railway traffic safety inspections (Ik-2) and the Rules for conducting railway traffic safety inspections (internal regulations of the Company's Head Office Safety Department).

In the context of the accident under investigation, the Investigation Team concludes that, despite the procedures being followed, the fact that the outdated Wrocław Nadodrze Technical Regulations and SPRT Technical Regulations were being used was not disclosed, nor were instances of SPRT staff performing shunting operations incorrectly. Nor were any irregularities identified in the implementation of the contract

with the Wolf Security Agency, consisting of the unauthorised operation of entry gates for rolling stock entering the SPRT depot and the performance of tasks by the contractor's staff without the use of personal protective equipment.
An analysis of the system documentation used at PKP PLK S.A. in the context of the occurrence under review indicates that the safety management system was not functioning correctly in the areas of supervision of employees' medical examinations, supervision of contractors and monitoring.

### 4.3. The management system for entities in charge of maintenance and maintenance workshops, including the functions specified in Article 14(3) of Directive (EU) 2016/798 and in Annex III to that Directive, as well as any subsequent implementing acts

The railway infrastructure manager has established a maintenance management system under possessed certificate of conformity for the entity in charge of maintenance. The technical condition of the railway vehicles and the manner in which the procedures of the maintenance management system were carried out had no bearing on the course and circumstances of the occurrence.

### 4.4. Results of the supervision performed by the national safety authority according to Article 17 of Directive (EU) 2016/798

Between 2019 and 2025, the President of the Office of Rail Transport (UTK) performed inspections at PKP PLK IZ Wrocław in the following areas:
- functioning of the safety management system,
- operation, technical condition and maintenance process of the dSAT rolling stock emergency detection equipment,
- technical condition, maintenance and operation of railway traffic control equipment, including the compliance of the control-command and signalling subsystem – trackside equipment – with the essential requirements,
- technical condition, maintenance and classification of level crossings between railway lines and roads, as well as the technical condition and maintenance of railway infrastructure, including engineering structures,
- supervision of the operation of the crisis management system within the railway area as part of the existing safety management system, including potential and actual crisis situations,
- supervision of the technical condition and maintenance process of the overhead contact line,
- degree of railway infrastructure manager's preparedness for operation in winter conditions, and the technical condition and maintenance of railway infrastructure and adjacent areas, including engineering structures, and maintenance process of the railway infrastructure and adjacent land, including engineering structures,
- conditions to be met by train drivers, as well as by persons employed in posts directly related to the operation and safety of rail traffic and the operation of specific types of railway vehicles, the management of rail traffic, and the technical condition and maintenance of rail traffic control equipment.

The inspections carried out by the national safety authority did not cover the operating principles and organisation of work at SPRT depot.

### 4.5. Authorisations, certificates and assessment reports issued by the Agency, the national safety authority or conformity assessment bodies: certificates, safety authorisations for the entities involved, authorisations for the placing in service of equipment and vehicles, and certificates for entities responsible for maintenance, and maintenance workshops.

The railway infrastructure manager holds safety authorisation No. PL2120210000 issued by the President of the Office of Rail Transport, valid until 2 March 2026 (during the course of the proceedings, the authorisation was extended until 2 March 2031, under number PL2120260002). The railway infrastructure manager holds a certificate of conformity for the entity responsible for maintenance, No. PL/31/0022/0016, valid until 1 March 2027, issued by the President of the Office of Rail Transport. Certain types of railway structures and rolling stock held valid certificates of approval for this type of railway structure or rolling stock.

### 4.6. Other factors

The Commission's investigation team did not identify any other factors associated with the application of the safety management system that were relevant to the occurrence.

## 5. Previous occurrences of a similar nature

The Commission's investigation team has identified the following occurrences of a similar nature, which were investigated by the State Commision on Railway Accident Investigation:

- A serious railway accident, which occurred on 3 December 2023 at 10:06 at Jaszczów station on turnout No. 1 built into railway track No. 1, at km 201.000 of railway line No. 7 Warszawa Wschodnia Osobowa – Dorohusk, within the area managed by the railway infrastructure manager PKP PLK S.A. Railway Line Plant in Lublin:
  Whilst train ROM 22401, operated by the rail carrier POLREGIO S.A. on the Lublin Główny – Zamość Szopinek route, was entering railway track 1 at Jaszczów station from railway track No. 1 Minkowice – Jaszów, two employees of the railway infrastructure manager PKP PLK S.A., Railway Line Plant in Lublin, Operations Section in Lublin, were struck by the train. These employees were clearing snow from turnout No. 1 on track one using a petrol leaf blower.
  As a result of this serious accident, one person died at the scene, whilst the other, in a serious condition, was taken to hospital, where he died as a result of his injuries.
  The causal, contributing and systemic factors, as well as the recommendations and their addressees, are described in the report of the State Commision on Railway Accident Investigation No. PKBWK 3/2025.
- A serious Category A23 accident, which occurred on 11 January 2020 at 04:35 on the Szamotuły–Pęckowo line, track No. 1, at km 34.102, railway line No. 351 Poznań Główny – Szczecin Główny, within the area managed by the railway infrastructure manager PKP Polskie Linie Kolejowe S.A., Railway Line Plant in Poznań:
  Whilst the pushed work train Rob1 was travelling towards Szamotuły station on the closed track No. 1, on the Szamotuły–Pęckowo section of railway line No. 351 Poznań Główny–Szczecin Główny at km 34.102, an employee of ZRI Chrobok was struck and the train collided sideways with a car situated within the structure gauge of track No. 1. The car became stuck (suspended on a protruding sheet pile) whilst attempting to leave the work site. The worker, who attempted to free the car, was forced into a position necessitated by these actions and, for this reason, had his back to the oncoming train and was within the structure gauge of track No. 1. As a result of the occurrence, the worker died at the scene. The locomotive, two carriages and the motor vehicle were damaged.
  The causes of the serious accident, the recommendations and the parties to whom they are addressed are set out in the report of the State Commision on Railway Accident Investigation No. PKBWK/09/2020.
- A serious Category A13 accident, which occurred on 9 March 2020 at 04:15 at Szymankowo station, on track No. 2, at km 287.360, railway line No. 9 Warszawa Wschodnia Osobowa – Gdańsk Główny, within the area managed by the railway infrastructure manager PKP Polskie Linie Kolejowe S.A., Railway Line Plant in Gdynia:
  Draisine WMB10-182 (work train Rob.1), whilst travelling from the closed route track No. 2 to Szymankowo station, passed the 'P' entry signal displaying signal S1 'Stop'. At the same time, on route track No. 1, Tczew – Szymankowo line, in the same direction, train LTE 555122 (locomotive E186-261, operator HSL Polska Sp. z o.o.) was travelling from the Gdynia Port GPA to Malbork; its route was scheduled to proceed from the track No. 1 to track No. 2 at Szymankowo station. After train LTE 555122 had passed the 'O' entry signal displaying the 'S6 – clear track, proceed at a speed not exceeding 100 km/h' signal, the train, whilst continuing along the connecting track between track No. 1 and track No. 2, collided at a speed of 76.7 km/h with draisine WMB10-182, which had come to a halt at turnout No. 26 on the train's route (draisine WMB10-182 belonging to the PKP PLK S.A. Railway Line Plant in Gdynia). As a result of the collision, two people were killed: the driver of the draisine and a track fitter travelling with him; the WMB10-182 draisine was destroyed, and the E186-261 electric locomotive and elements of the railway infrastructure were also damaged.
  The causes of the serious accident, the recommendations and the parties to whom they are addressed are set out in the report of the State Commision on Railway Accident Investigation No. PKBWK 1/2021.

# V. CONCLUSIONS

## 1. Summary of the analysis and conclusions about the causes of the occurrence

The analysis carried out shows that the accident was caused by the following circumstances:

- a failure by a Wolf Security Agency employee to comply with the rules for working safely on railway premises, including a failure to use personal protective equipment,
- allowing, by the Wolf Security Agency, employees to perform activities on active tracks involving the operation of entry gates for rolling stock at the SPRT depot, despite the absence of medical examinations covering factors arising from working on active railway tracks,
- a lack of supervision by the Wolf Security Agency over its employees regarding the execution of the contract with PKP PLK S.A. concerning the provision of physical security services at the SPRT depot,
- a malfunctioning safety management system of the infrastructure manager PKP PLK S.A. with respect to monitoring the continuity of staff medical examinations, the up-to-date nature of the regulations governing the organisation of work at the SPRT depot, the supervision of contractors under agreements concluded by PKP PLK S.A., and an ineffective system of internal controls, which failed to detect irregularities related to the incorrect organisation of shunting operations at the SPRT depot and the incorrect performance of shunting work.

The Investigation Team identified the following as the causal factor:

- A shunting movement colliding with a security guard moving between the rails of track No. 209 at turnout No. 205.

The Investigation Team found the contributing factors to be:

- Walking between the rails (on the track center line) by the SPRT depot security guard after the entrance gate has been opened.
- Movement of the security guard in a manner inconsistent with the rules for safe movement on active tracks and failure to use personal protective equipment.
- Failure to draw up detailed rules for conducting shunting operations at the SPRT depot.
- Inadequate briefing on shunting operations by the shunting foreman.
- Failure by the shunting foreman to occupy the correct position on the shunting movement whilst executing shunting manoeuvres, i.e. in the draisine's cab rather than on the first wagon being pushed.
- Start of the shunting movement by the draisine driver despite the shunting foreman not having given the signal to commence shunting.
- Commencing of entry into the SPRT depot by the shunting movement despite the shunting foreman occupying an incorrect position on the shunting movement (in the draisine cab) and the presence of an obstruction on the track (a security guard walking between rails).
- Performing the duties of the shunting movement driver whilst under the influence of alcohol.
- Employing a security guard on active tracks despite a medical certificate of disability and the absence of medical examinations required for working on active tracks.
- Performing activities involving the opening of entry gates for rolling stock by security staff at the SPRT depot, despite the absence of provisions in the contract concluded between the security agency and PKP Polskie Linie Kolejowe S.A. which would impose such an obligation on the contractor.
- Failure to designate safe access routes to the entry gates for personnel responsible for opening these gates for rolling stock entering the SPRT depot.
- Failure to exercise proper supervision over security staff operating within the SPRT depot premises.

The investigation team identified the following as systemic factors:

- Employing a person in a post directly related to the operation of rail traffic, who was performing the duties of a service and work train manager, without the medical examinations required for that post, and issuing authorisation to carry out official duties.
- Inadequate supervision under the safety management system of the infrastructure manager PKP PLK S.A.:

- regarding the organisation of shunting operations at the SPRT depot,
- of employees performing shunting operations,
- regarding the validity of employees' medical examinations.

– Performing shunting operations at the SPRT depot based on outdated provisions of the Technical Regulations for Wrocław Nadodrze Station and the Technical and Organisational Regulations for the Special Technical Rescue Train of the Railway Line Plant in Wrocław. Inadequate supervision of the updating of documents describing the organisation of work at the SPRT depot.
– Inadequate supervision by PKP PLK S.A.'s Railway Line Plant in Wrocław of the process for certifying employees directly involved in the operation of railway vehicles and railway traffic safety, performed based on a certificate issued by a railway occupational medicine physician.

The investigation team identified the following as other irregularities that did not affect the course of the occurrence:

– the lengthy period of over 20 minutes between the serious accident and the moment when staff at the SPRT depot notified the 112 operator, and the fact that the 112 operator was notified without going through the duty controller at Wrocław Nadodrze station,
– the Wolf Security Agency conducting the training independently without having the necessary training materials at its disposal and before obtaining PKP PLK S.A.'s consent for such action,
– failure of the driver of train ZUS 669226 to perform a test braking manoeuvre after departing from the starting station, Wrocław Główny,
– failure to draw up a list of railway vehicles comprising train No. ZUS 669226,
– failure to supervise the implementation of the contract with the Wolf Security Agency regarding the obligation to familiarise the security firm's staff with the occupational risk assessment and the hazards present at PKP PLK, which, according to the terms of the contract, should have taken place prior to the commencement of its implementation.

## 2. Measures taken since the occurrence

Following the serious accident at the SPRT depot, PKP PLK S.A., Railway Line Plant in Wrocław, immediately began to rectify the irregularities identified during the PIP inspection, which was conducted in parallel with the Commission's Investigation Team's proceedings. These measures included:

– updating the Wrocław Nadodrze Technical Regulations;
– updating the SPRT Organisational and Technical Regulations, including the addition of the missing group of railway tracks to the depot diagram;
– marking out safe access routes to the entry gates for rolling stock;
– rectifying faults in the train information system at Wrocław Popowice station,
– introducing, in the new contract with the Wolf Security Agency, which comes into force on 19 January 2026, provisions regarding the obligation for security staff to wear high-visibility vests whilst moving on railway tracks, opening and closing entry gates, and familiarising themselves with, amongst other things, the internal legal acts of PKP Polskie Linie Kolejowe S.A.

## 3. Additional comments

None.

# VI. SAFETY RECOMMENDATIONS

## 1. Recommendations arising from the investigation:

1) Authorised infrastructure managers, siding users and infrastructure managers exempt from the requirement to hold a safety authorisation and operating based on a safety certificate shall review the provisions of station technical regulations, special regulations, railway sidings' operating regulations and other internal regulations, with a view to designating and describing safe access routes to all locations where work is performed by staff moving within the railway premises.
2) Authorised infrastructure managers, siding users and infrastructure managers exempt from the requirement to hold a safety authorisation and operating based on a safety certificate shall ensure that station technical regulations, railway siding operating regulations and other special regulations are kept up to date, and that their provisions correspond to the actual situation.
3) Authorised infrastructure managers, siding users and infrastructure managers exempt from the requirement to hold a safety authorisation and operating based on a safety certificate shall strengthen supervision over the manner in which the infrastructure manager's staff perform shunting operations, including the briefing on shunting operations, taking up the correct position on the shunting movement, the correct use of shunting signals and monitoring the route of travel.
4) PKP PLK S.A. shall strengthen its supervision of compliance with the provisions of Instruction Ik-3 regarding checks on the sobriety of staff and the presence of substances with effects similar to alcohol, particularly those involved in the operation of railway vehicles.
5) PKP PLK S.A. will strengthen its supervision of the process for authorising staff to work, with respect to the validity of medical examinations.
6) Authorised infrastructure managers, siding users and infrastructure managers exempt from the obligation to hold a safety authorisation and operating based on a safety certificate shall strengthen supervision over contractors performing work on their premises to eliminate cases of movement on active tracks by contractors' employees who do not hold the required authorisations, medical examinations and training covering the principles of safe work on and the hazards present on the premises managed by these entities, according to their internal regulations.
7) PKP PLK S.A. shall review the risk register and the procedures applied under the safety management system with respect to:
   a. the adequacy of the risk control measures applied to specific hazards,
   b. updating the risk register to include hazards arising from ineffective internal controls over the railway operations process,
   c. the accuracy of the description of the personnel management process regarding the supervision of the continuity of medical examinations for specific job roles.
8) During periodic briefings, PKP PLK S.A. shall remind employees of:
   a. the rules for notifying the Emergency Call Centre (emergency number 112), according to instruction Ir-8,
   b. the rules for performing control braking on trains set in motion by the infrastructure manager,
   c. the rules for shunting operations conducted by the infrastructure manager's staff, including guidance on occupying the correct position on the shunting movement, correctly signalling shunting manoeuvres and observing the route of travel.

CHAIRMAN
OF THE STATE COMMISSION ON RAILWAY ACCIDENT INVESTIGATION

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List of acronyms used in Report **No. PKBWK 04/2026**

| No. | Symbol (acronym) | Explanation |
|---|---|---|
| *1* | *2* | *3* |
| 1. | UTK | Office of Rail Transport (Polish: Urząd Transportu Kolejowego) |
| 2. | PKBWK | State Commission on Railway Accident Investigation (Polish: Państwowa Komisja Badania Wypadków Kolejowych) |
| 3. | IZ | PKP PLK S.A. – Railway Line Plant |
| 4. | ISE | Operations Section of the Railway Line Plant, PKP PLK S.A. |
| 5. | IPR | Director of the Human Resources Department at the Company's Head Office |
| 6. | ECM | Entity in charge of maintenance |
| 7. | SPRT | Special Technical Rescue Train |
| 8. | RT | Technical Regulations |
| 9. | PIP | State labour Inspection |
| 10. | Wolf | Wolf Służba Ochrony Sp. z o.o. |
| 11. | Contract | Contract No. 61/208/0076/24/2/0 dated 16 December 2024 concluded between PKP Polskie Linie Kolejowe S.A. and a consortium comprising: Wolf Służba Ochrony Sp. z o.o., with its registered office in Wrocław (lead partner), and Wolf II Służba Ochrony Sp. z o.o., with its registered office in Krosno (partner), for the provision of physical security services, including for the SPRT depot in Wrocław. |