



Translation of an excerpt of the investigation report

“Train derailment Senftenberg station on 08/09/2026”

Status as of 20/07/2026, version 1.0.

Note:

In accordance with Article 3 of Implementing Regulation (EU) 2020/572, points 1, 5 and 6 of Annex I of an investigation report shall be written in a second official European language. This translation should be available no later than three months after the delivery of the report.

The text presented here was translated fully automatically and without human review by the European Commission's eTranslation service.

The following English translation is a corresponding excerpt of the investigation report. The German language version is authoritative.

Excerpt translation:

1 Summary

The first section contains a brief description of the event, as well as information on the consequences, primary causes and safety recommendations provided in the individual case.

1.1 Brief description of the event

On 08.09.2021 at 07:41 o'clock the passenger train RB 18344 derailed on the journey from the station (Bf) Halbe to Bf Senftenberg at the entrance to track 4 of the Bf Senftenberg in the point S91. The middle part of the train ran on two tracks and the bogies running in third and fourth places lost track guidance.

1.2 Consequences

No persons were injured or killed.

Damage to the vehicles and infrastructure amounted to an estimated 753,000 euros.

1.3 Causes

In the course of the investigation of the event, the following acts, omissions, incidents or circumstances were identified as safety-critical factors. These are differentiated into causal or contributing and systemic factors in accordance with Implementing Regulation (EU) 2020/572. In addition, identified deficiencies in emergency management are addressed.

For better clarity of the factors and aspects of emergency management, a classification with markings in square brackets is used.

A detailed evaluation of the event under classification as safety-critical factors is given in the following chapters.

Done at: date/time, and Action / omission / circumstance / incident	More causal factor	Contributor factor	Systemic factor
08.09.2021 07:41 am Fdl B1 activates the co- operating key for route release.	Untimely operation of the co-operating keys in the Stw B1 [F1]		Participating keys can be operated even before the full use of the FaZu [S1]
08.09.2025 07:41 am Ww W2 dissolves the route according to track 4 with key control and operation of the route signal lever, the train is closed in front of the FaZu.	Untimely release of the route by the Ww W2 [F2]		No technical dependency between interlocking and performed train journey [S2]
08.09.2021 07:41 am Fdl B1 operates commands for setting the route s/6.		Command for follow-up train before the arrival of the previous train [F3]	
08.09.2021 07:41 am Ww W2 switches point S91 during the crossing of the train.	Switching the point without testing for freedom by Ww W2 [F4]		No technical support for the clearance test by looking [S4]

Table1: Summary of influencing factors

1.4 Safety recommendations

In accordance with Section 6 of the Railway Accident Investigation Regulation (EUV) and Article 26(2) of Directive (EU) 2016/798, no safety recommendation is made.

5 Conclusions

The following section contains a summary of the identified causal, contributing and systemic factors. In addition, two further subsections are provided containing information about measures already taken, and additional comments

5.1 Summary and conclusion

The EIU had also established, inter alia, a consequential protective function in relation to the essential operational principle of the OPE TSI referred to in Chapter 4.1.1, in the working specifications applicable to the B1 and W2 Stw. Accordingly, the conditions for the authorisation of a train journey had to be maintained for as long as this was necessary to ensure the safety of the train journey. This was ensured by organizational operating rules, so that no train with already existing consent to travel could be jeopardized by the untimely change of a switch. The identified acts, omissions, incidents or circumstances around the time of the event nevertheless led to the derailment of RB 18344 in Senftenberg.

The train derailment was caused by operations of the Fdl B1 and the Ww W2 in the Senftenberg station, which were carried out in a period of about 20 seconds. These related to the release of the train route s/4 of RB 18344. First, the co-operating branch for the route release of the train route s/4 was operated untimely by the Fdl B1 [F1], when the train was in the inlet to the Stw W2. Operation was technically already possible about one km before reaching the usual stop [S1]. This was followed by the untimely of the route s/4 by the Ww W2, which was technically possible due to the previous action of the Fdl [F2]. An event-preventing train-related route release was not present on this train route [S2]. As contributing to the event, the early command of the Fdl B1 for the follow-up train was determined before the arrival of the previous train [F3], after which the Ww W2 switched the point S91, without finding that it was free of vehicles [F4]. There was no track clearance system as technical support for track testing [S4].

The BEU identified three causal factors, i.e. three systemic factors, as well as one contributing factor that led to train derailment.

The causal factor ‘Untimely operation of the co-operating keys in the Stw B1’ [F1] and systemic factor ‘co-operating keys can be operated even before driving on the FaZu’ [S1]

The Fdl in the Stw B1 served the co-operating branch for the release of the route s/4 for the train 18344 prematurely and contrary to the specifications of the regulations. At that time, the train was still in the inlet towards Stw W2; It did not stop at track 4. In addition, the Ww did not call the Fdl by telephone for the premature release of the route, which, according to Bebu, was permitted under the conditions set out in Chapter 4.1.1. At the time of operation, there were no conditions that allowed the operation of the co-operating keys.

A systemic factor is also the technical-organizational condition that the effective operation of the co-operating keys was already possible after the complete operation of the release contact 161I in km 46,397. From this point, the train had to cover about 567 m to the FaZu. Approximately 997 m had to be covered before reaching the usual stopping place, in accordance with the regulations for permissible operation.

Thus, it was already possible, about one kilometer before reaching the usual stop of the route, to dissolve the route without requiring proof of operation.

The causal factor ‘Untimely release of the route by Ww W2’ [F2] and systemic factor ‘No technical dependency between interlocking and train operation’ [S2]

The Ww W2 with the key control and the operation of the route signal lever prematurely dissolved the route according to track 4, contrary to the provisions in the driving service regulation. At that time, the train termination was still before the FaZu, which was defined in the list of train termination points. The end of the train was not yet recognizable by the Ww W2.

There was no train-related route release that could have prevented the event.

The contributing factor ‘Command duty for follow-up train before the arrival of the previous train’ [F3]

The fact that the Fdl quickly issued the following command for the route s/6 after release of the route s/4, presumably led to the Ww seeing an urgent need to change the point S91. The

indication of the follow-up route to be discontinued probably led to time pressure and thus increased the probability of occurrence of the event.

The causal factor ‘Switching without Ww W2 clearance test’ [F4] and systemic factor ‘No technical support for Ww W2 clearance test by looking’ [S4]

The point S91 was converted under the moving passenger train RB 18344. In doing so, the driving service provision was not observed with regard to the determination of the freedom of switches prior to their conversion. Checking for clearance of the point before the changeover would in all likelihood have prevented the event.

In this section there was neither a continuous track clearance system nor point lever locks that could have prevented the event. The BEU already published the safety recommendation 2018/1 in 2018, which contained the recommendation for a risk assessment of Bf without an automatic track clearance system with regard to retrofitting it. The use of a track-free signalling system in the main tracks of Senftenberg Bf would normally be used in combination with a technical route release. That circumstance would have meant that none of the above actions should have been carried out by Fdl or Ww.

5.2 Measures taken since the event

On the part of the district management “Operation” and the district management “Leit- und Sicherungstechnik”, planning was carried out for the implementation of a track section, which implements a cooperation of the train for the release of the relevant route. At the time of publication of the report, it had not yet been implemented.

5.3 Additional observations

The studies carried out did not contribute to this point.

6 Safety recommendations

Pursuant to § 6 EUV and Article 26(2) of Ril (EU) 2016/798, no further safety recommendation is issued with reference to the safety recommendations 2018/1 and 02/2026 that have already been issued and remain relevant.