



Translation of an excerpt of the investigation report

“Train collision Rheinkamp station on 24/09/2024”

Status as of 14/07/2026, 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 24.09.2024 about 07:15 a.m. the passenger train DPN-G 75332 collided on the journey from Duisburg Hauptbahnhof (Hbf) to Xanten in the station Rheinkamp on the switch 41 with a not point-marker-free stationary locomotive double-unit.

1.2 Consequences

Four people were seriously injured and twelve were slightly injured. Damage to the railway vehicles involved amounted to approximately €834,500.

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 factors 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
24.09.2024/from 07:09 a.m. Tfz 1116 153 does not remain point-marker-free on the switch 41	Failure to check the boundary- mark-free position of the parked vehicle [F1]	-	-
24.09.2024/from 07:12 a.m. Entry train line for DPN-G 75332 set by dispatcher (Fdl)	Failure to carry out roadway testing by the Fdl [F2]	-	-

1.4 Safety recommendations

No safety recommendations were 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 acts, omissions, incidents or circumstances identified in this investigation report around the event period led to the train collision at Rheinkamp station. Two causal factors affecting the event were identified by the BEU.

The causal factor ‘Failure to check the point marker-free position of the double-unit’[F1]:

The event was caused by a work error on the part of the Tf, which did not set the double unit out of switch 41’s point marker. This probably happened under great time pressure, as the Tf did not want to delay the continuation of the DPN-G 75332, which had been waiting for 20 minutes. In principle, it should be noted that the control of the consequences of human error in the interconnection of RUs and IMs must be a joint task of railway companies. In addition to the RU-side training and raising Tf’s awareness of the point-marker-free parking of vehicles, it may be necessary to examine the extent to which organisational and technical measures on the part of the EIU are also suitable for controlling the effects of human error.

The causal factor ‘failure of the signaller to check the track clearance’ [F2]:

In the Rheinkamp district, it was found that the checks for clearance of vehicles in the area of the event were carried out by watching and thus exclusively under human safety responsibility, as technical safety equipment was not available. Errors in the course of clearance-checking usually have direct effects and can inevitably lead to hazards or accidents. In the present case, the competent Fdl had not correctly evaluated the track sections in its district. This short rule oversight sufficed in conjunction with the usual operating procedures and led to the train collision on the switch 41. With a proper check from the window, the Fdl would have been able to see beyond doubt that there was a vehicle parked in the roadway that was not marker-free. Higher automation of interlocking systems would not have allowed this human error in this form. The Federal Railway Accident Investigation Office had recommended safety recommendation No. 01/2018

‘Train stations that do not currently have automatic track clearance systems should therefore be subject to a risk assessment. As a result, the main tracks of these stations should be successively retrofitted with an automatic track clearance system in accordance with the risk classification’.

This safety recommendation is unchanged with regard to what happened in Rheinkamp at the time of the event. Why this had not been applied in Rheinkamp until the event remained open.

5.2 Measures taken since the event

Following the event in Rheinkamp, DB InfraGO AG conducted an employee interview with the Fdl. In the future, this should no longer be used in the function as Fdl.

The EVU Rail Cargo Carrier - Germany GmbH blocked the Tf due to the event until the reconstruction of the event and carried out a follow-up training.

The topics identified during the event were included in the regular training courses. A presentation and evaluation of the event was carried out in the so-called ‘Safety Newsletter’. In the monitoring discussions with Tf, the necessary operating procedures for forming and solving double-tractions are dealt with within the expert discussions conducted in this context.

Furthermore, the RU issued an operational instruction on ‘Registration of shunting operations in the digital GSM-R train radio without shunting in shunting radio groups (RiR) procedure’ in addition to the Tf rule book valid for the RU. In this case, all shunting movements that take place before or after train journeys are to be carried out exclusively by indicating the train number when dialing into the GSM-R in order to ensure the recording of the conversations.

In the second half of 2026, an electronic interlocking for the Moers-Xanten line will be put into operation. As a result, the source of errors described at the time of the report is no longer available in the foreseeable future.

5.3 Additional observations

Not applicable.

6 Safety recommendations

No safety recommendations were made. Since there is a well-established and tried-and-tested risk control measure for the timely and inconsequential detection of such a work error in accordance with the rules governing the parking of vehicles, no independent safety recommendation is issued for the causal factor [F1].

Safety Recommendation No 01/2018 remains relevant with regard to the events in Rheinkamp at the time of the event. Through the project 'Electronic interlocking Lower Rhine 3rd and 4th Construction stage' on the line between Rheinberg (RhI) and Xanten and at Rheinkamp station, the train control and safety technology will be replaced by modern electronic interlocking technology by the end of 2026, so that the risk of errors in the course of a roadway test by looking at the Rheinkamp station will be excluded in the future. For these reasons, no independent safety recommendation is made for the causal factor [F2].