



Translation of an excerpt of the investigation report

“Train collision Fallersleben on 31/03/2021”

Status as of 10/05/2024, 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 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 31/03/2021 at around 6 pm, on the journey from Braunschweig shunting yard to Fallersleben, the freight train EZK 53810 collided with a shunting operation at Fallersleben station.

1.2 Consequences

Due to the train collision, the traction unit (TU) of the freight train and the shunting operation consisting of two TUs derailed. One person suffered minor injuries. There was considerable damage to the vehicles, the superstructure and the control and signalling systems, estimated at EUR 3,655,000.

1.3 Causes

The event was caused by the shunting train driver passing light signal 363 R, which was showing 'stop', without authorisation. Consequently, this operational error led to the collision between the shunting operation and the incoming freight train EZK 53180. The lighting conditions at the time of the event can be cited as a contributing factor, which may have led to a misinterpretation of the signal. The failure of the driver to omit a GSM-R emergency call after recognising his operational error meant that the extent of the damage that ultimately occurred was not reduced.

1.4 Safety recommendations

The Federal Authority for Railway Accident Investigation did not make a safety recommendation.

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 causal factor of the event was the operational error of the shunting train driver. The driver took the shunting operation into the path of the EKZ 53810 without the permission of the signaller.

The evaluation of the journey data between the signaller and the shunting train driver reflects the fact that the driver worked in accordance with the rules until the event occurred. It is therefore not possible to rule out that the lighting conditions at the time of the event had a rare influence contributing to the shunting train driver not recognising that the light signal 363 R was showing 'stop'.

Indeed, direct-acting flank protection elements such as track barriers or trap points are often used to reduce critical consequences of any unauthorised passing of signals showing stop aspect. However, for the specific circumstances of track 363 at Fallersleben station, which is also used by regular trains, the existing infrastructure equipment appears to be proportionate in terms of operational requirements and topological and economic circumstances.

The fact that the shunting train driver only made an GSM-R single call to the signaller after recognising his operational error, instead of the required emergency call in conjunction with an emergency stop order, should be mentioned as a contributing factor with regard to the high extent of the damage. If an emergency stop order had been sent as required, the supporting emergency call functions of the GSM-R could possibly have led to earlier emergency braking of EZK 53810 and thus reduced the extent of the damage. The driver of freight train EZK 53810 entered Fallersleben station on a signalled train route with the main signal showing 'proceed'. The speed limit was not exceeded at any time. When the driver of freight train EZK 53810 noticed the shunting operation in his path, the collision could no longer be prevented despite immediate emergency braking.

5.2 Measures taken since the event

DB Cargo AG has recently already developed and implemented a number of measures. Adaptions in education, training and monitoring are intended to solidify and improve employees' ability to recognise and observe stop signals duly.

5.3 Additional observations

Not applicable.

6 Safety recommendations

Following the review by the Federal Authority for Railway Accident Investigation of the application of the railway undertaking's processes for monitoring and training train drivers, no findings on additional factors relating to the safety organisation were identified. The infrastructure provided by the infrastructure manager at the location also appeared appropriate.

Therefore, no safety recommendations were made in this case.