MINISTRY FOR
INNOVATION AND TECHNOLOGY

TRANSPORTATION SAFETY BUREAU

FINAL REPORT (EXTRACTION)

2021-0563-5
(HU-10065)

Railway incident / SPAD
Mosonmagyaróvár, 16 June 2021

Translation

This document is the translation of Points 1, 5 and 6 of Hungarian version of the Final Report. Although efforts have been made to translate the mentioned parts of the Final Report as accurately as possible, discrepancies may occur. In this case, the Hungarian Final Report is the authentic, official version.

Basic principles of the safety investigation

The purpose of the safety investigation fulfilled by Transportation Safety Bureau (TSB) as National Investigation Body of Hungary is to reveal the causes and circumstances of serious railway accidents, railway accidents and railway incidents and propose recommendations in order to prevent similar incidents. The safety investigation is not intended to examine and determine fault, blame or liability in any form.

The findings of the safety investigation are based on an assessment of the evidence available and obtained by TSB in the course of the investigation, taking into account the principles of a fair and impartial procedure. In the Final Report, the persons involved in the occurrence shall be referred to by the positions and duties they had at the time of the occurrence.

The Final Report shall not have binding force and no appeal proceedings may be initiated against it.

This safety investigation has been carried out by TSB pursuant to relevant provisions of

- Act CLXXXIV of 2005 on the safety investigation of aviation, railway and marine accidents and incidents;
- Commission Implementing Regulation (EU) 2020/572 of 24 April 2020 on the reporting structure to be followed for railway accident and incident investigation reports;
- in the absence of other related regulation of the Act CLXXXIV of 2005, the TSB conducts the investigation in accordance with Act CL of 2016 on General Public Administration Procedures.

Act CLXXXIV of 2005 is to serve compliance with Directive (EU) 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway safety.

The competence of the TSB is based on Government Regulation № 230/2016. (VII.29.) on the assignment of a transportation safety body and on the dissolution of Transportation Safety Bureau with legal succession.

The safety investigation is independent of other investigations, administrative infringement or criminal proceedings, as well as proceedings initiated by employers in connection with the accident or incident.

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1. SUMMARY

On 16 June 2021, at 07:12, after passengers got off/on, the passenger train № 9412 stopping as per time table at Mosonmagyaróvár station departed to continue its journey, upon the signal “Ready to start” given by the chief ticket inspector, passed the V3 exit signal at danger without authorisation and stopped in the switching zone upon (too late) brake use by the locomotive driver. The train did not burst open the switch № 7 (incorrectly set up for it) already.

As a result, the entry signal ahead of the train № 9467 arriving from the opposite direction dropped back to ‘Stop!’ aspect automatically and the locomotive driver stopped the train (using the service brake) before the signal.

The occurrence was directly attributed to human factors: neither the locomotive driver nor the chief ticket inspector had checked the aspect of the exit signal.

However, it contributed to the occurrence that, although the train control system which could have prevented the occurrence was available, it was not in use because the railway undertaking had not provided a qualified locomotive driver to operate it. The train control system actually used did not force the train to stop in front of the signal at danger or to pass such signal at a speed of up to 40 km/h.

The IC found no grounds to issue a safety recommendation.

5. CONCLUSIONS

5.1 Summary

5.1.1 Direct causes

Acts, mistakes, events or conditions or a combination thereof the elimination or avoiding of which could probably have prevented the accident or incident:

a) neither the locomotive driver nor the chief ticket inspector watched the aspect of the exit signal;
b) although the train control system which could have prevented the occurrence was available but, following a decision of the railway undertaking, it was not used, but they used the older system which cannot prevent similar occurrences.

5.1.2 Indirect causes

Acts, mistakes, events or conditions which influenced the occurrence by increasing its probability, accelerating the effects or the severity of the consequences, but the elimination of which would not have prevented the occurrence:

a) the train control system in use does not meet the safety requirements set for it as regards speed limits of up to 160 km/h.

5.1.3 Systemic factors

Causal or contributing factors of organisational, management, social or regulatory nature which are likely to have an effect on similar or related occurrences, particularly including regulatory framework conditions, the design and use of the safety management systems, the skills of the personnel, the procedures and maintenance:

a) the railway undertaking moving the train let their train go with the train control system that provided the lower of the two available level safety levels and assigned a locomotive driver to that train configuration.

5.2 Actions taken

No action has been taken related to the occurrence.

5.3 Additional notes

The IC identified no factors which do not relate to the occurrence but increases risk.

5.4 Proven procedures, good practices

It served to mitigate the consequences of the case and to prevent more serious outcomes that:

a) the locomotive driver recognised the emergency situation before overrunning the signal therefore he managed to stop his train before physically trespassing the track route of the other train.

5.5 Lessons learnt

Fundamentally, similar cases can be avoided if the train crew pays due attention by actively checking the conditions of proceeding, but the chances of making an error may be reduced if the train crew is notified that there is an obstacle to their proceeding the usual way.

Similar cases can also be prevented by using the more up-to-date train control system.

6. SAFETY RECOMMENDATION

Similar occurrences can be avoided by observing the relevant rules and paying due attention by the crews therefore the IC finds no grounds to issue a safety recommendation.