

## Safety recommendation no. 158

Date of the publication	24.02.2021
Number of the final report	2020123101
Safety deficit	On the evening of 31 December 2020, at 4:43pm, a passenger train stopped at Belp Steinbach station. The passenger train was to due to couple with a multiple unit waiting on track 2 in Belp.  Leaving Belp Steinbach, the driver of the passenger train accelerated to 40 km/h. Around 230m before the waiting multiple unit he started braking using the electrodynamic brake. As the braking effect was inadequate, the driver pulled the emergency brake about 160m before the stationary multiple unit. However, the braking effect was still inadequate and the passenger train collided with the stationary train at a speed of 23 km/h.
	The preliminary results of the investigations suggest that the RABe 515 trainsets do not always achieve the braking performance that was determined when type approval was granted. For example, when the emergency brakes are triggered by the train protection system, the train may not always stop before the danger point.
Safety recommendation	The STSB recommends that the Federal Office of Transport (FOT) request the operators of trainsets of type RABe 515 to check and adjust the braking performance so that the trainsets achieve the braking performance values in the type approval in all operating situations. Alternatively, other measures should be taken to ensure that the trains are able to come to a standstill in time.
Addressees	Bundesamt für Verkehr
Stage of the implementation	The FOT has written to BLS and to the vehicle manufacturer, Stadler Rail, to obtain an assessment of the risks and of the measures that have either already been introduced or are planned to ensure the safe operation of all vehicles potentially affected in Switzerland. The FOT considers that the immediate measures agreed with BLS and the manufacturer up to and including Thursday 11 March 2021 are suitable for ensuring safe rail operations. We therefore consider Safety Recommendation 158 to have been implemented. In addition to the Safety Alert recorded by SUST in SIS ERA, the FOT has informed the safety authorities in Germany and Austria because potentially affected vehicles are in operation in these states.
Investigation report concerning the safety recommendation	Vorbericht Zwischenbericht Schlussbericht

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