



Safety recommendation no. 99

Date of the publication	22.09.2016
Number of the final report	2015022001
Safety deficit	<p>On 20th February 2015, shortly after 06:40 in Rafz, on the track near the exit towards Schaffhausen, a regional train collided with the side of an S-Bahn train. The collision can be attributed to the fact that the S-Bahn train driver incorrectly believed that he could depart when a 'Stop' signal was displayed.</p> <p>During the investigation, the cause of the accident was identified to include the following factor: the kind of cooperation in the driver's cab, which gave the impression of mutual control and thereby made it impossible to recognise the error in a timely manner. The investigation found that, among others, the following factors contributed to the accident:</p> <ul style="list-style-type: none">– The coincidental synchronisation of the signal positions which the locomotive crew involved mistakenly believed to be applicable to their own train.– Self-imposed time pressure. <p>During the investigation, the cause of the accident was identified to include the following factor: the existing safety equipment could not prevent the accident because it contained no departure prevention for departing or turning trains. The current change-in-use process leads to an assessment of the need for departure prevention for newly arising risk situations. However, it is to be expected that other similar situations, such as in the present case, can be found on the Swiss railway network. These cases are not recognised because the change-in-use process is not applied to past changes in use.</p>
Safety recommendation	The FOT should endeavour to ensure that all situations, even those which already existed before the introduction of the change-in-use process, are assessed to determine whether departure prevention is required and to be supplemented.
Addressees	Bundesamt für Verkehr
Stage of the implementation	<p>Implemented. During the migration to ETCS L1LS all infrastructure managers concerned checked all situations for the need for departure impediment and have added/will add departure impediment if necessary.</p> <p>The FOT has agreed to the IMs' equipment concepts or approved them as part of a project. The only exceptions we know of are Bonfol railway station in the canton of Jura (IBN ETCS L1 LS planned for August 2023) and the cross-border routes of Deutsche Bahn. The implementation date was the end of 2019 except in the instances mentioned.</p>

**Investigation report concerning
the safety recommendation**

Schlussbericht
