



Safety recommendation no. 98

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 kind of teamwork 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 vocal reporting of signals as well as other safetyrelevant information makes it possible to individually and mutually check observations or actions. Safety is reduced or even prevented if the roles with regards to the announcements in the driver's cab, as they currently exist, are not clearly defined or if not all parties are aware of them.</p>
Safety recommendation	The FOT should analyse the guidelines on signal reporting with regards to their safety relevance and implementation, with a special focus on whether the relevant actions are covered explicitly.
Addressees	Bundesamt für Verkehr
Stage of the implementation	Implemented. The FOT states that this safety recommendation is being implemented and clarifies the procedure as follows: as a first step, the guidelines on signal reporting were evaluated. Regulation FDV R 300.13, clause 3.2.4 dictates signal reporting, whereas for the responsibilities thereof the guideline in R 300.13, clause 2.1.1 applies. Whether it is – with a view to ensuring safety – more expedient for the trainee train driver to report the signals to the assigned train driver or vice versa has to be assessed dependent on the trainee train driver's level of training and the visibility conditions in the driver's cab. Here, the guideline as per R 300.1, clause 2.1.7 applies, stipulating that the parties have to agree on the precise course of action. In addition, the railway operating companies have to design their training concept on the basis of their specific operations and are responsible for this. Following the event in Rafz,

SBB P has already amended the corresponding clause in their operating regulations. Possible findings resulting from the measures formulated in safety recommendation no. 97 or from the safety monitoring activities are taken into account in the further development of official stipulations. Eliciting and analysing events such as signalling incidents is part of the SMS's risk management processes, and the FOT checked that the companies have implemented the processes as part of the FOT's monitoring activities.

**Investigation report concerning
the safety recommendation**

Schlussbericht
