



## Safety recommendation no. 117

<b>Date of the publication</b>	01.05.2017
<b>Number of the final report</b>	2016012001
<b>Safety deficit</b>	<p>On 20 January 2016 the rearmost axle of a Habbillnss type Wascosa wagon, which was lined up in the sixth position of a pushed shunting movement consisting of eight wagons, derailed at the Zürich-Mülligen station at set of points 318. The derailment of the rearmost axle of wagon no. 33 85 2891 025-4 at set of points 318 can be attributed to an imbalanced load on the set of wheels. The imbalanced load on the set of wheels was caused by a combination of the following factors:</p> <ul style="list-style-type: none"><li>– Pre-existing damage to the buffers caused by excessive buffer pressures as a result of couplings not being loosened in tight track bends.</li><li>– Excessive lateral forces at the end of the wagon, caused by excessive buffer pressures.</li><li>– Pushed, empty wagons crossing diverging points.</li></ul> <p>To prevent the buffers from being damaged and to eliminate the risk of derailment, the screw couplings of freight wagons must be loosened in accordance with the regulations when travelling on track bends with a curve radius &lt; 135 m. The information about the minimum radius of track curvature is not always listed in the operating instructions provided by the operators of the railway sidings. Without this information it is not possible for shunting staff to determine in which areas the couplings between the wagons need to be loosened.</p>
<b>Safety recommendation</b>	The FOT should ensure that the minimum track curvature is listed in the operating instructions for railway sidings and that the operational measures for travelling on the tracks concerned are regulated.
<b>Addressees</b>	Bundesamt für Verkehr
<b>Stage of the implementation</b>	Implemented. As part of audits and operational inspections of railway sidings, the FOT systematically checks whether tight track radii are recorded and whether this information is passed on by the operators of the railway sidings and whether the railway transport companies (EVU) have issued relevant regulations for travelling on tight track radii. Tight track curvatures and operational measures resulting from them have already been taken into account in the wellknown templates for operating instructions for railway sidings (such as the VAP).
<b>Investigation report concerning the safety recommendation</b>	<u>Schlussbericht</u>