

## Safety recommendation no. 59

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Safety deficit	At 18:44 on Monday 29 July 2013, Payerne-Lausanne regional train 12976 collided in Granges-Marnand station with Lausanne-Payerne RegioExpress 4049. At the time of the collision, train 12976 was travelling at a residual velocity of 60 km/h and train 4049 at 45 km/h. Of the 45 passengers who were in the two trains 26 were injured, 6 seriously. The driver of train 4049 died at the site of the accident.
	The signal box at Granges-Marnand station, which came into service in 1975, no longer corresponds in its entirety to current technical standards and operating procedures. In local operation, the driver alone is responsible for the train's departure. This means that a single human failure can cause a hazard or an accident.
Safety recommendation	When setting priorities for equipping stations with the Euro-ZUB train control system, more weight should be given to stations where trains meet only occasionally, and account should be taken of human factors such as the dangers of routinisation, job stress, train movement, duty rotas.
Stage of the implementation	Implemented: The fitting of the 21 similar but remote controlled junction stations with speed control is on course for completion by the end of 2015 at the latest. At the same time the departure process was reviewed and adjusted. As a result the dispatcher gives permission to depart, currently in 11 stations (two-man rule). As an immediate measure from October 2013, the SBB introduced the two-man rule in the following 7 stations: Granges-Marnand, Avenches, Chätillens, Cugy FR, Estavayer-le-Lac, Yvonand and Zweidlen. From 15.12.13 the two man rule was further extended to the following 5 stations: Bauma, Galmiz, Lucens, Turbenthal and Wald. In addition the SBB has accelerated its 1700 points programme to completion in 2 years, which means that speed control will be fitted to a further 1700 points by the end of 2018.
Investigation report concerning the safety recommendation	Schlussbericht

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