

Safety recommendation no. 19

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Safety deficit	On 17 February 2019 at 20:47 an ICE train passed over a set of points when departing from Basel Badischer Bahnhof. The front power car and the first bogie of the first carriage continued travelling along the right-hand track after the points, while the rear bogie and the rest of the train were switched to the left track. This derailed the rear bogie. The first carriage was dragged diagonally along across both tracks until the train came to a standstill approximately 20 metres in front of a tunnel wall between the two tracks. One person suffered a hand injury when attempting to stop the train with the emergency door release.
	The derailment of an ICE train when leaving Basel Badischer Bahnhof was caused by the inadvertent inadmissible emergency cancellation of its route track and the subsequent setting of another route track, which resulted in a points set being switched under the train while it was moving.
	After an emergency cancellation of one route track, another route could be quickly set up by changing the points of the previously-cancelled route track. There was no need to wait for the expiry of a blocking period or carry out a second operator control action before this resetting of this route track. Interlocking exists which also contains route blocks which after an emergency cancellation are automatically switched back to a preferred default setting. This has already led to similar incidents in Germany. It gives unambiguous instructions from DB Netz AG to the dispatcher regarding the circumstances under which a train route track can be given an emergency clearance. The mechanism of this instruction is intended to ensure that automatic selection of route blocks or inputting a new route does not entail any risks. There are no other dependent factors regarding the conditions under which route blocks can be reselected after the emergency cancellation of a route. The safeguarding against the risk after an emergency cancellation for a route rests solely on a written instruction for the dispatcher, which must be obeyed before the emergency cancellation. If emergency and evasive actions are also allowed from a 10-digit numerical keypad, this is known in Switzerland as "computer control operation". Control operations of this type are to be regarded in Switzerland as remote-control operations and consequently all have an emergency clearance time delay.
Safety recommendation	Target group: Infrastructure operators The infrastructure operators should examine the conditions under which route blocks of the cancelled train route can be used immediately after an emergency cancellation of the route, and take appropriate measures as necessary.

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Investigation report concerning the safety recommendation

Schlussbericht Vorbericht

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