

Extract from the investigation report BMVIT-795.096-II/BAV/UUB/SCH/2008 on the derailment of train 47490 on 24/03/2008

17. Recommended measures

These do not have the force of safety recommendations in accordance with UUG, Article 16(1).
Implementation is by the party involved under its own responsibility.

Point	Measure	Addressed to
17.1	Instruct employees on the provision of train data, especially when changing the direction of traffic ('toppling').	IM RU
17.2	Check the rounding conditions during automated braking calculation (mathematical rounding in accordance with ÖBB-DV V3, Article 28(6).	IM
17.3	Instruct traction unit drivers about keeping to the signalled speed in particular in respect of damage to vehicles and infrastructure.	RU (traction service provider)
17.4	Perform random checking of adherence to permissible speed by evaluation of the recording device on the traction unit.	RU (traction service provider)
17.5	Perform random checking of adherence to permissible speed by external measurement, e.g. using radar equipment.	IM
17.6	Correct the Bsb [Betriebsstellungbeschreibung - operational station description] of the Leoben Donawitz yard: line 41201 is not a main line under EisbG 1957 [Eisenbahngesetz - Austrian Railways Act], Article 4(1).	IM

Notification has already been received that the following recommended measures have been implemented:

On point	Measure	Received from
17.4	Random checking of the speed of incoming trains at Leoben Donawitz yard by ÖBB-Traktion GmbH up to the end of November 2008 (evaluation of the traction unit recording devices).	RU (traction service provider)
17.5	Random checking of the speed of incoming trains at Leoben Donawitz yard by ÖBB-Infrastruktur Betrieb AG up to the end of November 2008 (with laser gun).	IM

18. Recommendations

On 18 April 2008 the Austrian Federal Ministry of Transport (national accident investigation unit) issued the following safety recommendation (GZ.BMVIT-795.096 /0001-II/BAV/UUB/ SCH/2008):

*Translation provided by the Agency for information purposes.
The only valid version is the original version provided by the NIB.*

Point	Safety recommendation	Addressed to
18.1	Check the securing of rails of the design used on track 16 in the Leoben Donawitz yard, on all sections of ÖBB-Infrastruktur Betrieb AG with similar usage criteria	IM

This safety recommendation is supplemented and expanded as follows:

Point	Safety recommendation	Addressed to
18.2	Check if the regulations for standard maintenance of track installations, in this case securing of rails with 'Pandrol' type elastic spikes, are laid down in sufficient detail.	IM (regulations author)
18.3	Check the operational documents for the km indication of the Leoben Donawitz yard (comparison with ÖBB-Bsb, -VzG and – working timetable).	IM
18.4	Check if for international goods trains the necessary braking power should be adhered to in accordance with leaflet UIC 421.	IM RU
18.5	Check if through improvements in infrastructure planning, an economic running profile can increase safety (installation of points which allow signal-controlled entry to track 16 for an entry signal 'A' at 'CLEAR AT 60 km/h' also offers energy saving potential).	IM
18.6	Check the provisions of ÖBB-DV V3, Rev. 14, Article 27(2), Table, point 6) with regard to non-passenger-carrying trains comprising uniform wagon stock. The definition of 'comprising uniform wagon stock' is given as <i>completely empty or fully loaded trains comprising bogie cars with the same grid letters</i>. With the application of the current regulations for such trains, the wagons are braked uniformly but according to the sequence in the trainset with a time delay. In this way, a force level is created in the trainset in waveform with maximum power peaks in the longitudinal direction of the 'train' reference system. Depending on the direction, these power peaks cause: • high pressure forces leading to overbuffering and derailments • high traction forces that can lead to train separations. These power peaks rise with increasing train length and braking effect (service braking – rapid braking). An exception to this is trains with electropneumatically controlled brakes (EP). The provision of ÖBB-DV V3, Rev. 14, Article 27(2), Table, point 6) should therefore be lifted.	Rail safety authority

In response to the safety recommendations, notification about the following measures has already been received:

On point	Measure	received from
18.1	During renewal or maintenance operations, track to be secured as a priority with Pandrol fastenings by ISC Leoben	RU (traction service provider)