

Submitted by the expert from Norway

We refer informally to document GRSG-115-04 distributed at the 115<sup>th</sup> session of GRSG, October 2018, where we proposed that regulations be drawn up concerning frontal protection in buses. The argument from GRSG in 2018 against this was that active safety will help reduce this type of accident, which we do not agree with.

Norway still considers that the absence of requirements to protect the driver in frontal collisions in the current regulations is a deficiency that should be rectified.

Active security measures have been shown to have limited effect in such cases. Therefore, it is necessary to take other measures to increase safety.

We believe that passive safety must be built into the bus to improve protection for the driver as a contribution to reducing the extent of this type of accident.

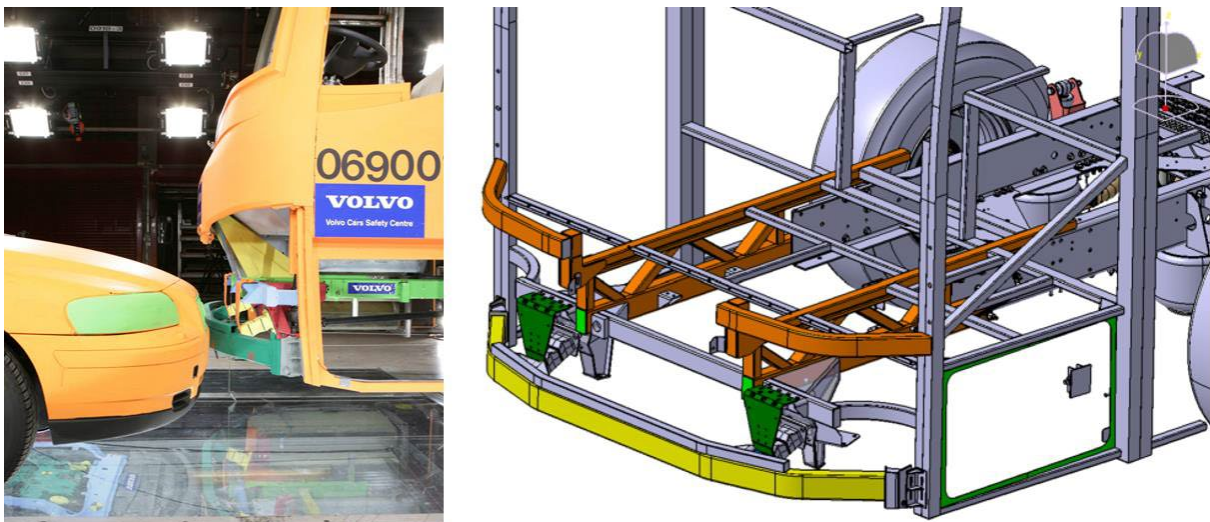


Photo: Accident Investigation Board Norway- report

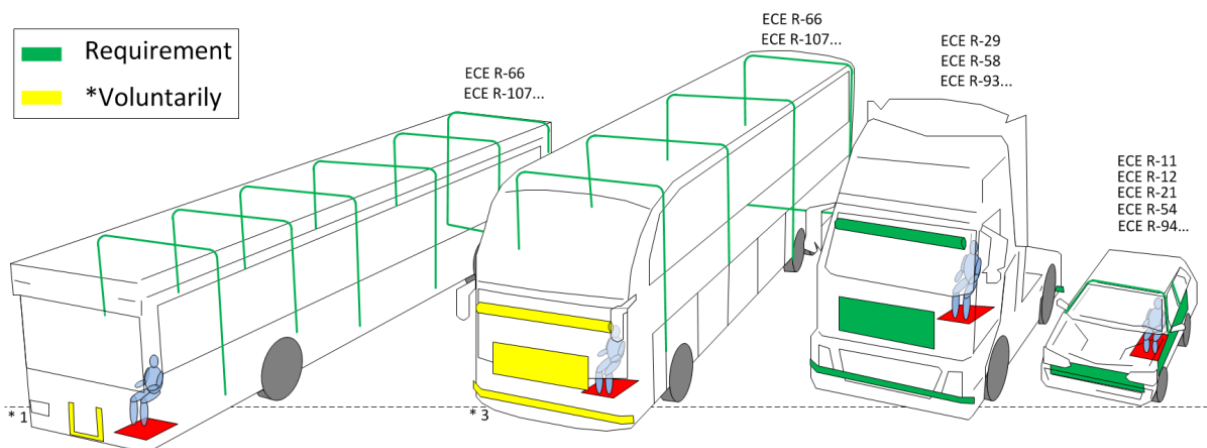


Photo: Accident Investigation Board Norway- report

There has been a considerable number of accidents with buses where bus drivers have been seriously injured or killed in connection with head-on collisions in Norway. After document 115-04 was presented in 2018, 3 bus drivers have lost their lives in head-on collisions and 7 bus drivers have been injured.

In the period from 2011 - 2023, 35 people have died in head-on collisions with buses, of which 11 are bus drivers, 75 people have been seriously injured and 274 have been lightly injured

Based on the Ministry of Finance's assessment of what a statistical life is worth, we have concluded that head-on accidents involving buses on average have cost almost NOK 222 million every year.

It is not easy to find any good estimates of how large the effect of underrun protection devices on buses will be, but it is not inconceivable that it will exceed investment costs by a fair margin.

It will probably have a positive effect on all types of road users involved in this type of accidents. The driver of the bus will be less exposed, brakes and steering will not collapse in the collision, which will have a positive impact on bus passengers. For persons of the colliding party, it will probably be positive for the outcome of the accident that they do not end up under the bus.

In the Norwegian Public Roads Administration's assessment, the measure to improve frontal protection for drivers will involve small costs for society compared to the gains in terms of increased road safety

[The Accident Investigation Board Norway](#) has recommended the introduction of technical requirements applying to the bus front to reduce the extent of damage and injury in connection with potential frontal impact accidents. It has also been raised by the labour unions that buses need to become more crash resistant.

Norway proposes to resume the work on the draft UN Regulation or to develop an amendment to UN R107.

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