

SUMMARY IN ENGLISH

On 1 February 2018 a lorry with trailer was supposed to transport timber between a timber felling site in Stromsberg, north of Tierp, Uppsala County, to a timber mill in Karbenning, approximately 11 kilometres south west of Norberg, Norberg municipality, Västmanland County.

The driver of the lorry, who was a student of a nearby upper secondary driver school, was performing driver practice for his certificate of competence for heavy lorry with trailer. He was accompanied by a supervisor, who sat in the passenger seat of the lorry.

When the lorry with trailer was about to turn right through a three way intersection between two county roads, and thereafter pass over a railway level crossing followed by an incline, the trailer pushed the lorry straight ahead instead of following the truck through the turn in the intersection, which resulted in a momentary loss of control over the truck and trailer. By activating a sand apparatus mounted on the drive axle on the lorry and the driver pressing the accelerator, the driver and supervisor managed to regain some control of the vehicle. Despite of the actions taken, the truck and trailer got stuck on the railway level crossing, which was equipped with automatic half barriers. The trailer had gotten snagged on a post belonging to the railway infrastructure and couldn't be moved. The driver and supervisor exited the lorry and soon thereafter the road railway lights started flashing and the audible warning sounded. The driver and the supervisor, who did not have the time to alert the appropriate authorities, managed to proceed to a safe distance.

When the driver in the approaching train saw the lorry on the level crossing, he immediately activated the brakes and then, after the train had reduced some speed, jumped from the train. The driver was seriously injured from the jump and both the locomotive and the lorry were substantially damaged.

According to the SHK the cause of the accident was the extremely slippery road surface in combination with the unfavourable road conditions at the intersection, i.e. the gradient of the road in the turn, the sharp turn itself and the following incline of the road directly after the crossing.

A contributing cause to the accident was that the protection in the railway crossing had a limited ability to detect the vehicle in the crossing and provide the train with the possibility to stop in time.

The unfavourable road conditions in combination with the railway level crossing protection, i.e. automatic half barriers, could be considered to be an underlying systemic limitation in the traffic system, which could not be said to in an adequate fashion have been able to handle the arisen conflict between the two vehicles.

Safety recommendations

The Swedish Transport Administration is recommended to:

- To chart sites on roads in road category 5 where multiple concurrent factors could make it called for increasing the category level. *(RJ 2018:01 R1)*
- Review how and in what way the requirements that are put forward to the subcontractors in "Standardbeskrivning för Basunderhåll Väg" can be considered to handle severely slippery conditions in intersections on roads in road category 5. *(RJ 2018:01 R2)*
- Consider if the regular heavy lumber traffic on county road 755 and 759 results in the fulfilment of the traffic related requirement "road vehicles with particular risk", which would in turn lead to an upgrade of the choice of protection at the level crossing. *(RJ 2018:01 R3)*
- Consider if the area of use for obstacle detection systems can be expanded to also include other railway crossing types with other specific risks, other than high speed. *(RJ 2018:01 R4)*

Leif Löfgrens Åkeri AB is recommended to:

- In an appropriate way ensure that the employees at the company receive information on the proposed route before starting an assignment, regardless if a vehicle is equipped with a computer terminal or not. *(RJ 2018:01 R5)*