

FATAL LEVEL CROSSING ACCIDENT IN PERÄLÄ, KEMPELE, FINLAND, ON 6 OCTOBER 2007

On Saturday 6 October 2007 at 11.36 a.m., a car and a Pendolino train en route from Oulu to Helsinki collided on the Perälä level crossing in Kempele, resulting in the death of the car driver. The train staff and passengers were not injured.

The car driver's destination was a dog fair in Kempele. The driver left the highway at the Oulunsalo ramp, headed in the direction of Oulunsalo, and then turned left towards Kempele town centre. At the Shell service station the driver turned left onto Sohjanantie. According to an eyewitness, the driver drove along Sohjanantie at a low speed, but did not stop at the level crossing's STOP sign.

Pendolino S52 had departed from Oulu towards Helsinki at 11.29 a.m. As the train approached the level crossing at Perälä, the engine driver noticed a car driving along Sohjanantie on the right. After it became apparent that the car was continuing towards the crossing without stopping, the engine driver started emergency braking. The track speed limit at the crossing was 140 km/h, which was also the speed of the train immediately before the collision.

The train collided with the left side of the car. The car was caught under the front of the train and was pushed ahead by the train until the train stopped 592 metres from the crossing. The train was not derailed.

The car was entirely wrecked and the train's front structure incurred damage. Traffic along the section of the line came to a halt from 11.40 a.m.–5.00 p.m. Train traffic between Oulu and Liminka was handled by busses while the track was closed. The accident caused damage totalling € 132,000.

The direct cause of the accident was that the car driver drove onto the level crossing without stopping. It is likely that the driver failed to make any observation of the train approaching from the left. This was probably because the driver had taken a wrong turn. Furthermore, the driver's attention was probably focused on driving in an unfamiliar environment, looking out for a place to turn around and pedestrians who were walking their dogs along the road. Sohjanantie was not equipped with appropriate warning signs either before or at the crossing. The vegetation between the road and the track also impaired the visibility of the track and the train running parallel to the road.

In order to prevent similar accidents, the Accident Investigation Board of Finland recommends the removal of the Perälä level crossing or its replacement with an interchange. Furthermore, as a derailment prevention measure, the Board recommends that the lower front structure of the train be re-designed in such a way that cars cannot be wedged underneath. In addition, the Board proposes the following actions before the implementation of the recommendations: Sohjanantie should be equipped with the appropriate warning signs, the level crossing should be equipped with portals, and undue vegetation between the road and the track should be regularly removed. The Board favours proposals for improved accident localisation with equipping locomotive with a GPS equipment and automatic locating of a mobile phone, as submitted in a statement by the Emergency Response Centre of North Ostrobothnia and Kainuu.