SUMMARY IN ENGLISH

A shunter, also being the driver, was intending to move a trainset from track 3B at Helsingborg station to an adjacent train yard. The shunter contacted the signaller and requested permission to commence shunting from track 3B to track 8. The signaller answered "8, yes then I will do that". It was the shunter's perception from the conversation with the signaller that the signaller would immediately set a shunting route for the planned transport of the trainset.

The shunter did thereafter also perceive that he received permission to start the shunting in a shunting signal. However, the investigation shows that it is very unlikely that he got permission to start shunting in the shunting signal. Instead, it is very probable that the shunter did pass the shunting signal at "stop". He did although discover that the following switch was positioned incorrectly for his shunting movement, and he stopped and reported to the signaller that he had passed a shunting signal showing the "stop" aspect.

Before the shunter had passed the shunting signal, a passenger train had already passed the last main signal on route to the platform at Helsingborg station. The passenger train had been given a train route to the platform on track 4, which meant that the passenger train had to pass the switch where the shunter had stopped. The train driver saw the trainset on track 3, but did not at this time perceive that the shunting movement had passed the clearance point and therefore intruded on the train route.

Shortly thereafter, the right side of the front of the two trainsets collided with each other. Both driver cabs were damaged. Additionally, the right side of two cars of the passenger train were damaged and a few windows were shattered. Four passengers sustained minor injuries.

According to the SHK the accident was caused by the fact that the shunter had perceived that he had been given permission to start the shunting in shunting signal 110, which led to the fact that the shunting movement passed the shunting signal and consequently intruded on the train route of the passenger train. A contributing cause to the shunter's perception was an ambiguous communication between the shunter and the signaller. An additional contributing cause was deficiencies in the shunter's attention due to the performing of distracting tasks.

An underlying deficiency at a systemic level is that shunting is performed without any physical or technical safety system.

Furthermore, the investigation shows that there is a potential for improvement in the Swedish Transport Administration's application of the process of handling accidents, incidents or discrepancies.

SAFETY RECOMMENDATIONS

Transdev Sverige AB is recommended to:

• In an appropriate way, ensure that train drivers understand when to send an emergency message and how they go about formulating and sending such a message.

The Swedish Transport Administration is recommended to:

- Perform a review of the regulation regarding railway traffic (TTJ) with the purpose of in a more clear way regulating how information shall be exchanged between e.g. a signaller and a shunter.
- Investigate if shunting operations in situations such as in this one, i.e. when shunting movements can come in conflict with passenger trains, actually are carried out in a sufficiently safe manner and, if it is motivated from a safety standpoint, suggest appropriate measures.
- Perform a review of both the paper and computer-based version of the checklist for accident, incident and discrepancy so that both versions can provide a uniform and equally clear support, regardless of which version that is used.
- In an appropriate way strengthen the local signallers preparedness and capability to handle serious and rare emergency events, e.g. by conducting additional training sessions, improving technical support systems or clarifying what support a signaller can rely on from other available personnel.