

SUMMARY IN ENGLISH

On the morning of 1 of February 2021, the track circuit for passenger train 8121 indicated as unoccupied in the signal interlocking for a total of 54 seconds on the line from Garsås to Rättvik in Dalarna county. The signal interlocking then automatically set a train route for freight train 9672 from Rättvik to Garsås, which for a period of time resulted in a risk for the two trains to travel on the same line in the opposite direction.

The dispatcher observed that that the track circuit for train 8121 indicated unoccupied and blocked the line so the signals was set into “stop”. The trains stopped 10 kilometres apart.

During troubleshooting, a physical, durable coating was observed on both rails over a distance of four and a half kilometres. The coating disturbed the wheel axles' ability to short-circuit between the rails and thereby detect in the signal interlocking system.

The incident was caused by a coating of wood-based material on the rails, which meant that the interlocking track circuits did not detect train 8121.

The wood-based material probably consisted of wood chips, in combination with an unknown factor that contributed to increased adhesion to the rails. It has not been determined how the coating was formed and stuck on to the rails.

The probable reason for the wood chips in the track area was insufficient load securing.

Measures taken since the occurrence

During the summer of 2021, the Swedish Transport Agency carried out an inspection of the Swedish Transport Administration based on the incident. The purpose of the inspection was to investigate whether the Swedish Transport Administration had a functioning system for safety management and how they implemented relevant requirements with significance for traffic safety.

The focus of the supervision was on the following areas:

- Governing documents for the infrastructure's interlocking system.
- Risk management.
- Structure and responsibility.

The auditors made a number of observations and a follow-up meeting with the Swedish Transport Administration was held in the autumn of 2021 to discuss the continued handling of the observations. The meeting resulted in the Swedish Transport Administration sending an action plan to the Swedish Transport Agency. The action plan stated that the Swedish Transport Administration has implemented or plans to implement the following measures:

- Completed risk analysis with quantification of the frequency of loss of indication of the track circuit.
- Carry out a study on how requirements for wood chip wagons to be fully covered can be introduced. The study will be performed in dialogue with the industry. End date: 2023-01-15.

Green Cargo has carried out site visits to loading customers in the Mora area and checked that they follow the current loading instructions. The plan is to carry out a recurring site visit per year.

Safety recommendations

The Swedish Transport Agency is recommended to:

- in their supervision, monitor how railway undertakings with safety certificates for freight traffic ensure loading of wood chips so that traffic safety is not affected as a result of speed wind and lost cargo on to the track. *(RJ 2022: 03 R1)*

The Swedish Transport Administration is recommended to:

- review rules and support to ensure fact finding in the event of incidents involving traffic safety. *(RJ 2022: 03 R2)*