

Ärendenummer
TRV 2024/28583
Motpartens ärendenummer
J-4/23

Dokumentdatum
2025-05-09

Konfidentialitetsnivå

Mottagare
Statens haverikommission
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Kopia till
Diariet

This document is a translation made by SHK of the original response in Swedish to the safety recommendation. In case of discrepancies between this translation and the Swedish original text, the Swedish text shall prevail in the interpretation of the response.

The Swedish Transport Administration's response to the SHK report on the derailment of iron ore train 9915 at Vassijaure, Norrbotten County, on 24 February 2024 (2025:01)

On 24 February 2024, a freight train derailed at Vassijaure on Malmbanan, between Narvik in Norway and Kiruna. The train consisted of two locomotives and 62 empty iron ore wagons. No persons were injured; however, the infrastructure and rolling stock were damaged.

From Riksgränsen onwards on the Swedish side, a fresh to strong south-easterly wind was blowing. The air temperature was above zero, while ground temperatures remained below freezing. The wind carried wet snow, which was compacted and froze into hard snowdrifts on the ground.

The train had to stop outside Vassijaure for almost one hour because work was being carried out at the station. The driver stopped the train substantially sheltered within two snow galleries. During the stop, the driver made several short movements of the train. A hole in the wall of one of the snow galleries allowed snow to blow in and become compacted on the track beneath the wagons.

When the train continued, the compacted snow lifted some wheels and wagons off the rails. The track ran through a curve, and lateral forces caused the wheel flanges to climb over the inner rail, resulting in derailment. The derailed wheelsets and wagons continued to travel with the train for 1.2 kilometres into Vassijaure station before the derailment worsened and the train was brought to a stand by an emergency brake application.

Following its investigation, the Swedish Accident Investigation Authority has recommended that the Swedish Transport Administration:

- Review the guidelines and routines for the construction and maintenance of snow galleries in order to protect the track against severe snowdrift formations (SHK 2025:01 R1)
- Cooperate with the railway undertakings that operate Malmbanan, to continue to assess how routines can be developed and measures taken with the aim of reducing the risk of train derailment in connection with low axle load and severe snowdrift formations (SHK 2025:01 R2)

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The Swedish Transport Administration's measures

Review the guidelines and routines for the construction and maintenance of snow galleries in order to protect the track against severe snowdrift formations (SHK 2025:01 R1)

In accordance with the recommendation, the Swedish Transport Administration is reviewing the construction and maintenance of snow galleries in order to protect the track against severe snowdrift formations.

- A supplementary action description will be prepared, covering the management of both urgent and minor measures identified through safety inspections or urgent reports of defects in snow galleries along Malmbanan under the routine maintenance contract. To be completed no later than 30 November 2025.
- Contract templates will be supplemented to ensure that both minor and urgent maintenance measures are included in new routine maintenance contracts. To be completed by 31 January 2026. Procurement of the next routine maintenance contract for Malmbanan will commence in autumn 2026.
- Climate adaptation measures are under way for existing snow galleries in order to ensure their load-bearing capacity and functionality. Preparatory measures and design work are ongoing, and implementation/construction is planned for 2026–2030.
- All snow galleries have been marked to facilitate and contribute to clearer inspections. Each gallery has identification signs, and the load-bearing structure has been numbered.

Cooperate with the railway undertakings that operate Malmbanan, to continue to assess how routines can be developed and measures taken with the aim of reducing the risk of train derailment in connection with low axle load and severe snowdrift formations (SHK 2025:01 R2)

The Swedish Transport Administration considers that the perspective needs to be broadened to include all railway undertakings, as snow-related operational challenges may arise in several parts of the country.

Therefore, the Swedish Transport Administration has raised the matter in the Forum for Traffic Safety Risks of Common Interest within the Railway Sector (FRI). At a meeting on 10 April 2025, SHK's recommendation was raised for joint discussion of its management and the continued work. This was intended to establish a common understanding and promote shared learning, with the aim of reducing the risk of train derailment in connection with low axle load and severe snowdrift formations.

The joint assessment of the Swedish Transport Administration, representatives of the Railway Undertakings association Tågforetagen and the Swedish Railway Contractors' Association is that highly detailed routines and rules for specific occurrences, such as that on Malmbanan, do not provide the additional conditions that would have been needed to prevent the occurrence. What is considered effective in preventing such situations is communication between train

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drivers and signallers on similar occasions, enabling them jointly to assess the prevailing situation.

In accordance with the Swedish Transport Administration's procedures for the "National Seasonal Railway Preparedness Plan", the Swedish Transport Administration, railway undertakings and contractors review the plan ahead of the relevant season. At these meetings, the Swedish Transport Administration will remind participants of the risk of derailment in connection with low axle load and severe snowdrift formations. To be completed ahead of the 2025/2026 winter season.

During the winter season's regular weekly meetings, and at additional meetings convened in the event of extreme weather conditions, the Swedish Transport Administration will take account of the risk associated with low axle load and severe snowdrift formations when assessing the need for traffic restrictions. To be completed ahead of the 2025/2026 winter season.

In order to further disseminate the information in the preparedness plan and provide an opportunity for dialogue, it will be presented in FRI. This item will be included on the agenda annually after the preparedness plan has been approved and well in advance of the winter season.

In addition, the joint industry assessment is that the regular work to describe how the Swedish Transport Administration, contractors and railway undertakings are to prevent, and take measures within, their respective areas of responsibility in order to reduce seasonal disruptions must continue and be developed as necessary.

The Swedish Transport Administration comments on the supplementary safety provision in LKAB's document *LKAB-174-65, Driver's Rulebook (3.15 *Rules and Regulations*, page 27 of 32, SHK 2025:01)*, based on the dialogue held with railway undertakings and contractors at the FRI meeting on 10 April 2025. The wording is considered sufficient in view of the driver's ability to assess the positioning of locomotives and wagons in relation to the rails on longer trains, with the aim of reducing the risk of a derailment of the type that occurred on Malmbanan.

Yours sincerely,

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