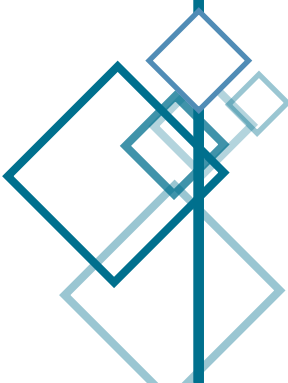


Summary Safety Investigation Report

Derailment and side collision between two trains
Y Walenhoek - 6 February 2020

REPORT VERSION TABLE

| <u>Version number</u> | <u>Subject of revision</u> | <u>Date</u> |
|-----------------------|----------------------------|-------------|
| 1.0 | First version | 03/12/2021 |
| | | |



Any use of this report with a different aim than of accident prevention - for example in order to attribute liability - individual or collective blame in particular - would be a complete distortion of the aims of this report, the methods used to assemble it, the selection of facts collected, the nature of questions posed and the ideas organising it, to which the notion of liability is unknown. The conclusions which could be deduced from this would therefore be abusive in the literal sense of the term.

In case of contradiction between certain words and terms, it is necessary to refer to the Dutch version.

1. SUMMARY

1.1. OVERVIEW

On 6 February 2020 at around 11:36 a.m., train LZ70080 (locomotive 7724 pulled by locomotive 7722) departs from Kalishoek in the Waaslandhaven. The train proceeds onto Line 10 via Line 211, and then runs from Antwerpen Linkeroever, via the Antigootunnel under the Scheldt and under Kanaaldok B2, in the direction of Antwerpen Rechteroever.

When train LZ70080 leaves the Antigootunnel, freight train E49826 runs on Line 223 towards the intersection of L10 and L11 to continue its journey on Line 10 in the direction of Antwerpen Linkeroever. Freight train E49826 is composed of 20 wagons, empty but not cleaned of RID goods. The train is pulled by locomotive 1308.

When leaving the Antigootunnel, train LZ70080 passes the closed signal S-W.9, and continues towards the intersection of Line 10 and Line 11. At around 12:24 p.m., train LZ70080 derails at the intersection, and locomotive 7722 collides sideways with train E49826.

Upon impact, 6 wagons of train E49826 derail. Wagon four overturned into the embankment, and the residue of the wagon leaks out onto the track formation. Wagons five and six derail towards the embankment, and partially overturn.

Upon impact, the 2 locomotives of train LZ70080 derail. The driver's cab of the first locomotive (7222) is severely damaged, and the diesel tank is leaking. The train driver of train LZ70080 sustains a minor injury to his hand. The train driver of train E49826 emerges unscathed. The infrastructure is seriously damaged, and due to the repair works, Line 10 and Line 11 are blocked for train traffic at Y. Walenhoek for several days.

1.2. INVESTIGATION

The Investigation Unit must conduct an investigation into every serious accident occurring on the railway system.

The accident of 6/2/2020 meets the definition of a serious accident¹.

¹ Article 111, § 1, of the Law of 30 August 2013, Law on the Railway Code.

1.3. CAUSES

The **direct cause** of the derailment of train LZ70080 was the train's failure to stop at a closed signal (SPAD).

The **first indirect factor** of the derailment is distraction caused by the failure to apply the SARES rules after obtaining a restrictive signal.

The **second indirect factor** is the failure to use the blinds and/or sunglasses in time.

The **third indirect factor** is the absence of a stopping system at the last signal in rear of the intersection of L10 with L11.

Systemic factor - 1

The danger of glare from the sun is not correctly identified by the railway undertaking.

Systemic factor - 2

The decision not to immediately equip signal S-W.9 with ETCS/TBL1+ when constructing the new railway connection is taken without a prior risk analysis with an appropriate risk assessment method for the hazardous point concerned.

1.4. RECOMMENDATIONS

As a result of its findings, the Investigation Unit formulated 1 recommendation regarding the use of blinds and/or sunglasses while driving:

Recommendation systemic factor - 1

The DRSI should ensure that the infrastructure users subject the danger of train driver glare (due to the sun) to a risk analysis showing that appropriate risk management measures have been taken.

As a result of its findings, the Investigation Unit formulated 1 recommendation regarding additional findings related to risk analyses and safe integration.

Recommendation systemic factor - 2

The DRSI should ensure that the infrastructure manager subjects decisions with an impact on safety to a prior risk analysis, including hazardous points affected by a project.

Rail Accident and Incident Investigation Unit
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