

# Summary - Safety Investigation

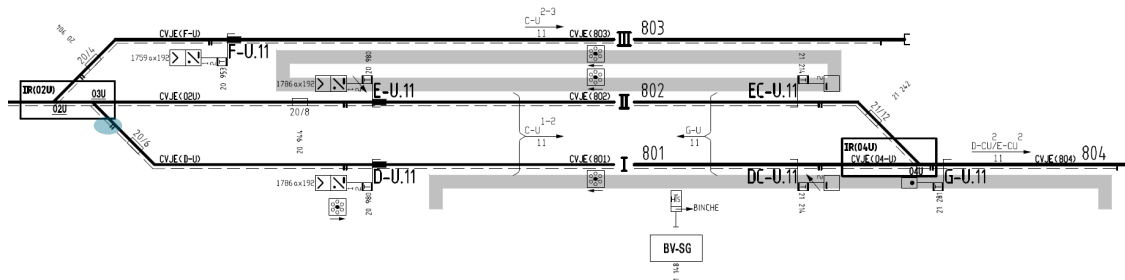
## Collision between 2 SNCB/NMBS passenger trains

### Binche - 13 january 2016



## BRIEF OVERVIEW

A photograph of a white and yellow passenger train at night. The train is stopped on tracks, and its headlights are illuminated. The number '713' is visible on the front of the train. The background is dark, suggesting a nighttime setting.



The accident happened on Wednesday 13 January 2016 at around 20:53. Even though it was not a serious accident, an investigator from the Investigation Body (IB) went to the scene of the accident.

The first findings at the scene showed that the rear of the struck train was still in the gauge of the track that the other train had been travelling on.

The analysis of the data and signalling commands allowed it to be concluded that there was no irregularity in the automatic route tracing or in the commands made by the block 11 operator.

The analysis of the data recorded on board the trains allowed it to be concluded that the drivers of the two trains respected the signals and the regulations.

## DIRECT CAUSE

The collision between the two passenger trains was made possible due to the position of an insulated connection on a track circuit ensuring the detection of trains: while the train E3440 had released one part of its route by passing this connection, the train was still in the track gauge of the adjacent track II.

The track circuit being released, the movement of the train ME3421 onto track II was authorised: the front of the train ME3421 collided with the rear of the train E3440.

## INDIRECT CAUSE

In 2011, the installations in Binche changed to EBP/PLP. The parameter setting of installations did not require any works or adaptations on the ground. There was no procedure for verification foreseen: the 1002 plan was not altered.

The change of technology (TCO Video/PLP " EBP/PLP) and the change of logic (introduction of flexible transit) are changes requiring study and verification procedures: the error in the 1002 plan was not picked up in these changes.

The parameter-setting of installations was therefore carried out based on the 1002 plan and the insulated connection 21U was considered as a release point.

The released track circuits may be used in the route tracing of another train, increasing operational flexibility.

## UNDERLYING CAUSE

The parameter-setting in EBP at Binche station was carried out according to experience at the time, without formal written procedures being foreseen and followed. This way of proceeding does not allow risks linked to the use of a new technology (switch to EBP) to be taken into account. According to the DRSI, this switch to another technology constitutes a major change that, according to Regulation 402/2013 (or previously 352/2009):

- should be evaluated by taking into account all changes linked to safety;
- should require the exhaustive application of the MSC in relation to the evaluation and assessment of risks.

### **Recommendation No 1**

The IB recommends that the infrastructure manager ensures that its internal procedures reflect the experience acquired and the formalising of results of risk analysis in documents so that they allow every step of studies, works and tests carried out to be validated in the context of the alteration of signalling installations.

## OTHER FINDING

Certain problems had already been identified, in the inspections carried out by the DRSI (National Safety Authority) as well as from internal inspections by the infrastructure manager itself. The infrastructure manager's I.B.1 department implemented a comprehensive action plan. This plan was presented to the DRSI and is currently being carried out.

### **Recommendation No 2**

The IB recommends that the DRSI ensures there is a follow-up to the implementation of a comprehensive action plan for improvements made by Infrabel.

The audit has been planned by the DRSI for the second half of 2016.



Investigation Body for Railway Accidents and Incidents  
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