2024 ANNUAL REPORT

of the Rail Accident and Incident Investigation Unit

THIS PDF IS INTERACTIVE

FOREWORD

FOREWORD

2024 was a busy year for the Rail Accident and Incident Investigation Unit. During that year, five safety investigations were opened and two investigations were closed, pursuing our commitment to rail safety and the continuous improvement of practices.

There were also a number of significant internal changes in 2024, including the appointment of two new investigators on completion of their internship period, helping to strengthen our analytical capabilities. The launch of our *LinkedIn* page is also a step forward in our communication and our desire to raise our profile with the public and stakeholders.

At an international level, our Investigation Unit played an active role in four Peer Reviews – in France, Spain, the Netherlands and Switzerland – promoting the sharing of experience and the standardisation of practices. At the same time, we took part in the work of the European Task Forces of the National Investigation Bodies (Task Forces 1 to 4), focusing on improving methodological and communication tools (revision of the procedure manual for Peer Reviews, revision of guides).

This report looks in detail at all these activities and highlights our ongoing commitment to enhance rail safety, both in Belgium and at a European level.

Leslie Mathues
CHIEF INVESTIGATOR

THE INVESTIGATION UNIT

THE INVESTIGATION UNIT

1 | Legal status

The creation in 2007 of an independent body responsible for investigating railway accidents and incidents for the improvement of safety is provided for by the European Directive 2004/49, replaced by the European Directive 2016/798. This Directive has been transposed into Belgian law with one law and two implementing decrees.

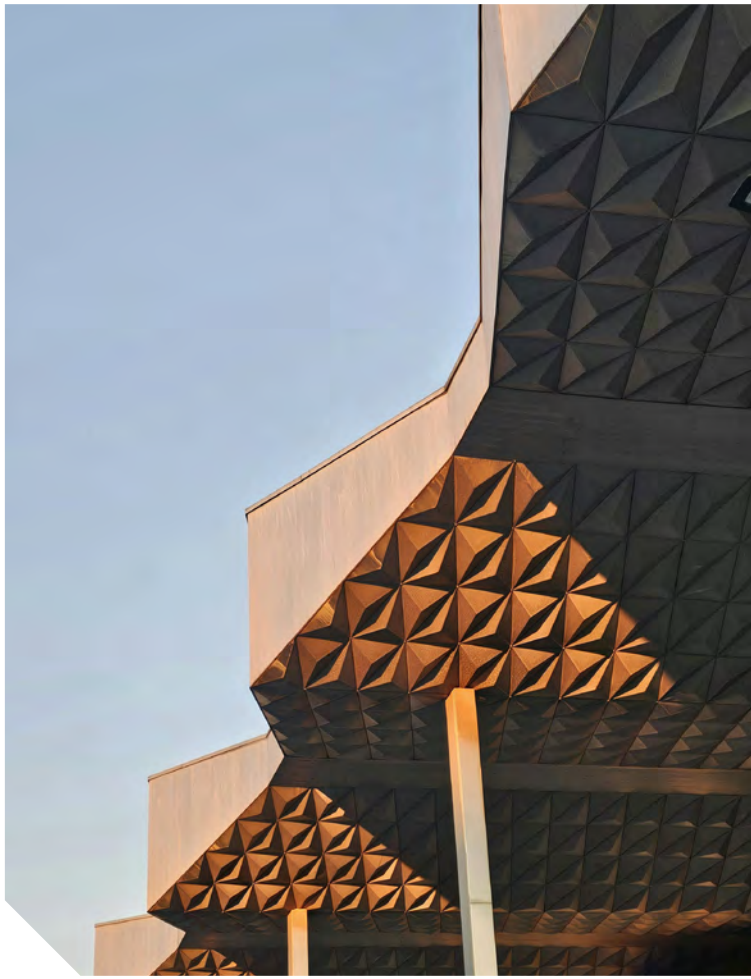
Law of 30 August 2013 on the Railway Code

The railway code partially transposes:

1. Directive 2007/59/EC of the European Parliament and of the Council of 23 October 2007 on the certification of train drivers operating locomotives and trains on the railway system in the Community, as amended by Commission Directive 2016/882 of 1 June 2016 amending Directive 2007/59/EC of the European Parliament and of the Council as regards language requirements;
2. Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 establishing a single European railway area;
3. Directive (EU) 2016/797 of the European Parliament and of the Council of 11 May 2016 on the interoperability of the rail system within the European Union;
4. Directive (EU) 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway safety.

Chapter 6 of the Law of 30 August on the Railway Code, title 4 Operating safety relates to:

- **Designation of an investigative body** (SECTION 1. – ART. 110);
- **Tasks** (SECTION 2. – ART. 111-112);
- **Powers** (SECTION 3. – ART. 113-114);
- **Investigation** (SECTION 4. – ART. 115-119);
- **Conclusions and reports** (SECTION 5. – ART. 120-122);
- **European consultation** (SECTION 6. – ART. 123-124).



Royal Decree of 16 January 2007

The Royal Decree of 16 January 2007 has been amended by the Royal Decree of 1 March 2019 setting certain rules for investigations into railway accidents and incidents.

In its Chapter 3, it stipulates the autonomy that the RAIIU has to decide on when to visit the site of an accident, when to open an investigation and also on the scale of an investigation.

It sets out that the members of the RAIIU have an authority card and that the holder of this card has the powers listed in Article 113 of the Railway Code.

Royal Decree of 22 June 2011

The Royal Decree of 22 June 2011 designates the Rail Accident and Incident Investigation Unit (IU), and repeals the Royal Decree of 16 January 2007.

It stipulates in Article 4, that the chief investigator and the assistant chief investigator of the IU may have no link to the Department for Railway Safety and Interoperability (DRSI), or to any railway regulatory body or any authority whose interests could conflict with the investigation.

Law of 26 March 2014

The Law of 26 March 2014 regulates all requirements for the operational safety of museum railway lines. A museum railway line has the main function of touristpassenger transport with historical rolling stock, such as steam trains. These are abandoned railway lines which have remained in place and which are generally operated by a company operating tourist trains.

To be able to operate a museum railway line, the operator must have authorisation, issued by the Safety Authority (DRSI).

This law stipulates that the operator of a museum railway line should immediately inform the IU of the occurrence of a serious accident, according to the means determined by the IU. It also foresees that the IU carries out an investigation following every serious accident occurring on a museum railway line.

Implementing regulation 2020/572

The reports on investigations and any findings and subsequent recommendations provide crucial information for the future improvement of rail safety in the Single European Rail Area.

A common structure of the investigation report should facilitate sharing the reports.

To facilitate the access to useful information and its application to other European stakeholders, some parts of the report are requested in two European languages.

The structure should protect the NIB from external interferences, guarantee that the investigation has been carried in an independent manner in accordance with Article 21(4) of the Directive (EU) 2016/798.

Modification

No modifications have been made to the law on the Railway Code and the implementing decrees directly concerning the investigation unit.

2 | Organisation and resources

Independence

To keep the public's trust, the IU must be objective, independent and free of any conflict of interest.

The various legislative changes made since its creation allow the IU to work completely independently.

The hierarchical position of the IU guarantees its independence from other organisations and institutions such as the cabinet of the minister for Mobility, Mr Georges Gilkinet, having jurisdiction over infrastructure manager INFRABEL and Belgian railway undertaking SNCB/NMBS, the FPS Mobility and Transport, the Safety Authority, etc.

Thus, during the year 2024, the IU is under the direct authority of Ms Petra De Sutter, the minister of Public Administration, Public Enterprises, Telecommunication and the Postal Services.

However, this independence is not only linked to the hierarchical position.

It can also be seen in the freedom to decide when to open investigations, in how to conduct them, and also in the availability of financial resources.

The annual budget is established by the Chief Investigator in collaboration with the department for Budget and Management Control. He has the power to authorise various expenses within the financial limits mentioned, to finalise contracts, etc. The Ministerial Decree of 4 October 2011 sets the powers which are delegated to the Chief Investigator in financial matters.

Aside from general expenses (staff, offices, operations, equipment), there are also specific operational expenses foreseen which ensure the IU is able to fulfil its duties: regular external expertise and consulting, individual safety equipment, participation in specialised training and conferences etc.

The Memorandum of Understanding made with the FPS Mobility and Transport allows not only use of its offices, but also numerous services: legislative, personnel procedures, etc.

Budget

The creation of an organic budgetary fund by Article 4 of the programme act of 23 December 2009 is intended to guarantee the financial independence of the Rail Accident and Incident Investigation Unit.

The funds are made up of contributions to the operational costs of the IU by the infrastructure manager and railway undertakings.

The King determines, by Decree, the amount of the annual IU budget, after consultation with the Council of Ministers.

Total staff

On the 31 December 2024, the IU was made up of:

- A chief investigator;
- A senior investigator;
- An investigator;
- Two junior investigators;
- An intern in training for the position of junior investigator;
- An administrative expert.

Investigations are led by the permanent investigators of the IU with the support of experts chosen according to the skills considered necessary.

To be able to carry out its duties effectively and with the level of quality required while remaining independent in its decision making, the IU has an appropriate level of technical expertise internally in the railway domain and experience on the ground.

The IU actively collaborates with the infrastructure manager and the company or companies concerned while an investigation is being conducted and when drafting safety recommendations.

The IU offers its personnel the opportunity to take regular training courses. The aim is for members of the team to be specialised in various disciplines, and for them to accrue and share experiences through a policy of knowledge transfer within the group.

Cooperation with the National Safety Authority

In January 2024, the IU and the National Safety Authority entered into a Service Level Agreement (SLA), the purpose of which is to describe the cooperation processes between the two parties, including the arrangements for exchanging information.

As an example:

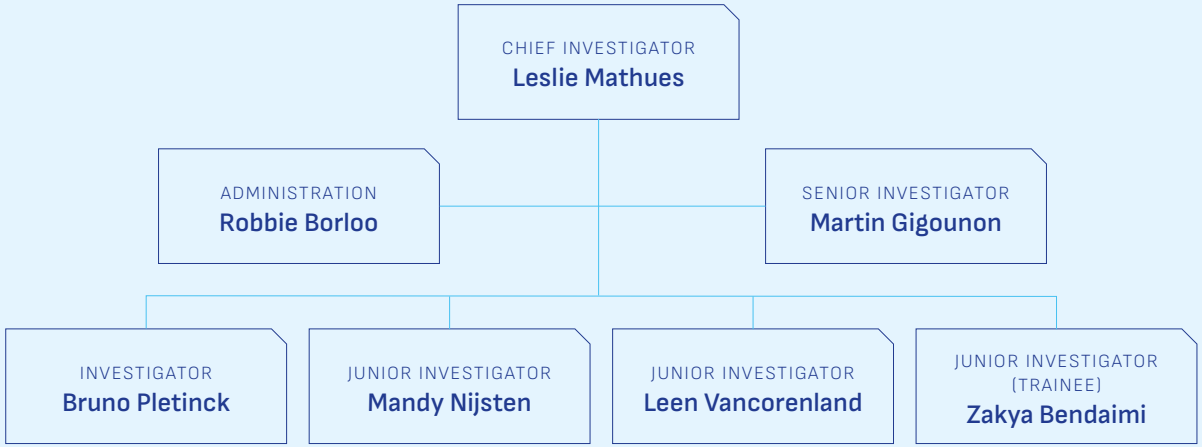
The RAIIU gives the DRSI (National Safety Authority) permission to extract and use data from the database files of the RAIIU as a source for their analyses in order to develop their own dashboards as part of their risk-based supervision.

The "Recommendations" database, set up jointly by the DRSI and the RAIIU in accordance with article 122 of the Railway Code, is hosted on the DRSI server. Each party manages access to that database for their own staff.

Localisation

The offices of the IU are situated in the offices of the Federal Public Service Mobility and Transport, rue du Progrès 56 (5th floor) in Brussels, close to the North station.

The IU organisation chart



OUR MAIN DUTIES

OUR MAIN DUTIES

1 | The investigations

The main task of the Investigation Unit (IU) is to investigate operational accidents considered serious, occurring on the Belgian railway network.

As well as serious accidents, the IU is allowed to investigate other accidents and incidents with consequences for railway safety.

The safety investigations carried out aim to determine the circumstances and causes of the event and not with apportioning blame.

They are separate from the legal investigation, which takes place alongside.

They are based on multiple aspects: infrastructure, operations, rolling stock, staff training, regulations, etc.

The results of the investigations are analysed, evaluated and summarised in the investigation report.

The investigations opened and closed in 2024 are briefly described in the following chapters :

› Opened investigations

› Closed investigations

However, this investigation report is not a formal decision. It may contain safety recommendations for authorities, railway undertakings, the infrastructure manager or other public.

The aim of these recommendations is to reduce the risk of similar accidents re-occurring in the future, but also to limit the consequences.

2 | Databases

All the accidents and incidents reported by the infrastructure manager and by railway undertakings are recorded into the IU database daily.

In this database, all events are catalogued based on the information provided by the railway undertakings and the infrastructure manager.

The information in the database is essential for allowing the IU to efficiently conduct its investigations and to analyse the general safety trends.

The data are either automatically transferred, or introduced directly in the database via an automatic electronic form by the railway undertakings and the infrastructure manager.

Access is managed by the IU.

The database is made available to the Safety Authority (DRSI) and allows common safety indicators to be determined, as foreseen by European Directives.

The safety, security and environment service of the Directorate-General for Sustainable Mobility and Railway Policy of the FPS Mobility and Transport also has access to the "report" database for accidents and incidents occurring at level crossings.

Each year, we receive:

- **About 9.000 brief accounts** (including aggression towards train conductors, rolling stock failure, incidents on foreign rail networks...);
- **About 5.000 reports.**

Automatic alerts have been put in place by the IU to draw the attention of IU investigators to certain types of events: death, derailment, collision, etc.

Since 2017, railway undertakings and the infrastructure manager are able to access the database of the IU when they are involved in an event.

Since 2018, monthly statistics are put at their disposal through the IU database system. These statistics are provided on a provisional basis, since they are based on the data entered by the railway undertakings and the infrastructure manager.

The database is not static, and evolves in function of acquired experience, frame references and needs that have been identified.

Since 2023, the software "Tableau" allows us to develop dashboards showing accident and incident trends. The dashboards are shared with the national safety authorities.

3 | Communication

The investigation reports are made public and are intended to inform the parties concerned, the industry, regulating bodies, but also the general public. This is why the IU publishes, in two languages (French and Dutch) the reports, and in four languages (English, French, Dutch and German), summaries giving details of the main elements of an investigation. The report outlines the elements that have allowed conclusions to be drawn.

Contact with the press is via the spokespersons of FPS Mobility and Transport, in accordance with the agreement protocol established between the FPS and the IU.

For further transparency, the website is updated when the Investigation Unit decides to open an investigation.

After having brought the primary elements together, the Investigation Unit publishes a bulletin of general information pulling information on factual grounds. This information is not yet the analysis that will be published afterwards in the investigation report.

To strengthen their online presence and improve their visibility among partners and the general public, the IU developed their communication on *LinkedIn*: they share their news, projects and opportunities there.

The reports and summaries by the IU are available on the IU website at the following address:

www.rail-investigation.be/en/investigations

OTHER ACTIVITIES

OTHER ACTIVITIES

1 | National Investigation Body Network

The IU takes part in the activities of the network of national investigation bodies, which take place under the aegis of the European Union Agency for Railways (ERA). The aim of this network is to allow an exchange of experiences and to work together on European harmonisation of regulations and investigation procedures. This international platform ensures an exchange of good practices between Member countries, as well as the development of guides to have a common vision and interpretation of the practical application of European Directives.

NIB Network Management Committee

The NIB Network acts accordingly to an approved Rule of Procedure and its activities are coordinated by a team of one representative from five NIBs (including Belgium), elected by their colleagues for a three-year term.

Plenary meetings

We are passively and actively involved in the plenary meetings, whether upon the presentation of available elements from investigations, upon the presentation of the status of an ongoing investigation, or upon the sharing of results of "human and organisational factors" (HOF) investigations.

Each year, three plenary meetings are scheduled by the European Union Agency for Railways. Two so-called hybrid plenary meetings (face-to-face and online) are scheduled whereas one meeting is scheduled only face-to-face.

- **13 and 14 February 2024** (hybrid meetings);
- **15 and 16 May 2024** (hybrid meetings);
- **9 and 10 October 2024** (face-to-face meetings).

Peer Review

Peer Review aims to monitor the effectiveness and independence of an investigation body by examining its organisation, processes and results (e.g. accident reports, safety recommendations, annual reports). The Peer Review process also aims to contribute to the development of all investigation bodies by sharing the strengths and suggestions for improvement identified during the reviews.

Peer Review is not obligatory but it is highly recommended. As for Belgium, it has been chosen to transpose the participation in Peer Review into the law.

We participated:

- as panel coordinator in the Peer Review of the French investigation body on 6 and 7 February 2024;
- as an observer in the Peer Review of the Dutch investigation body on 10 and 11 April 2024;
- as a panel member in the Peer Review of the Swiss investigation body on 22 and 23 October 2024;
- as panel coordinator in the Peer Review of the Spanish investigation body on 6 and 7 November 2024.

Task force 1: Peer Review

The IU participates:

- in the Peer Review planning and follow-up meetings;
- in the preparation of the annual report;
- in the project of updating and revising the handbook, questionnaires and forms used during Peer Reviews.

Task force 2: revision of guidelines

The IU participates in meetings in order to revise the guidelines. The guidelines provide guidance and information to member countries as well as investigation units, in particular by sharing best practices for meeting regulatory requirements. The guidelines can also serve as information for railway undertakings, infrastructure managers, national safety authorities, etc.

The Task Force continued their work:

- the drafting of a new guide on investigations into entities in charge of maintenance;
- the revision of the guidance on the establishment and work of the national investigating bodies.

Three guidelines were revised and published on the investigation bodies' website on a dedicated section of the ERA website.

www.era.europa.eu/agency/stakeholder-relations/national-investigation-bodies/nib-network-european-network-rail-accidents-national-investigation-bodies_en

Task force 4: learning dissemination

The Directive (EU) 2016/798 on railway safety emphasizes the importance of cooperation and information exchange between the investigation bodies of each Member State. These bodies actively collaborate to develop common investigation methods, with the aim of implementing safety recommendations and adapting to technological and scientific progress.

TF4 members discussed the presentation of the most recent accident investigations.

TF4 published a newsletter aimed at supporting NIBs in different ways:

- sharing best practices in terms of investigations;
- helping:
  - to identify existing gaps;
  - to propose concrete solutions to prevent similar incidents and accidents in the future.

2 | Central European Group (German Speaking Group)

During this exchange meeting between investigation bodies, participants are encouraged to give:

- Information on changes, innovations and developments in the various investigation bodies;
- Presentations to serve as a basis for discussions on the results of investigations, the difficulties encountered and the procedures implemented.

We participated in the meeting which took place in Strasbourg on 16 and 17 April 2024.

3 | Safety consultation meeting organised by the DRSI

This consultation is mainly aimed at disseminating information and launching debates on safety issues having an impact on the entire sector. Participants are encouraged to give presentations that will serve as a basis for these discussions. The FPS MT comments on the most recent changes to the legislation.

Two meetings were planned by the DRSI on 7 June and 6 December 2024.

4 | Trainings

Some examples of trainings attended by some IU members:

"Investigating Human Performance" Training

Two investigators attended the "Investigating Human Performance" Training (29 April – 3 May 2024) organised by Cranfield University.

The importance of human performance in incidents and accidents is widely acknowledged, however the investigation of how human factors influence the causal sequence is less well understood.

This course has been designed to help those who may be involved in the investigation of incidents and accidents to better understand how physiology and psychology influence the likelihood of an individual to make errors or commit violations.

Areas covered include cognition and information processing, medical factors, assessing fatigue, ergonomics, human factors investigation methodologies/tools and organisational/cultural factors.

The course is delivered by experienced practitioners from the accident investigation and human performance fields with experience from the rail, marine and air transport sectors.

"Applied Rail Accident Investigation" Training

One investigator attended the workshops "Investigating Derailment Accidents" (15 – 17 July 2024) and "Investigating Railway Operations Accidents" (17 – 19 July 2024) of the "Applied Rail Accident Investigation" Training organised by Cranfield University.

The *Cranfield Safety and Accident Investigation Centre* are offering a workshop series for the rail industry, carefully developed in close collaboration with the accident investigation community. The *Applied Rail Accident Investigation* workshop series concentrates on the specific operational and technical aspects relevant to the most common types of rail accidents.

The "Investigating Derailment Accidents" workshop focuses on the investigation approach of derailment accidents. It covers an overview of the mechanisms and factors contributing to derailment, such as collecting, inspecting, and interpreting evidence. Practical exercises, which are conducted on a track, include dynamic modelling of wheel/rail interface response, relevant human and organisational factors.

The "Investigating Railway Operations Accidents" workshop covers investigation approach of all other aspects of railway operations investigations such as level crossing accidents, signal passed at danger, overspeeding, track worker/maintenance staff fatalities and near-misses, platform safety including platform-train interface and train door irregularities, train/vehicle runaways and authorised movements, and train/rail vehicle collisions. The workshop also addresses investigations related to light rail (tram) and driverless operations. Relevant human factors aspects are also covered.

"GCU[1] Schooling"

Two investigators attended the training organised by Bewag (5 and 6 June 2024).

A training which allows to better understand the mutual obligations and rights of wagons keepers and railway undertakings for railfreight.

The program includes:

- GCU legal aspects (rights & obligations of the parties)
- Practical cases (wagons inspection & maintenance)
- Exchange of best practices

An enriching training that allows the exchange of best practices in the railway ecosystem and innovation.

"Measuring devices" Training

In 2024, the IU purchased two measuring devices:

- a wheel profilometer:

- a rail profilometer:

Profilometers for railway rolling stock wheels and rail profilometers offer a simple solution to quickly measure various geometric parameters using laser scanning. They can be used to detect any defects in the profile and/or wear of wheels and rail.

To familiarise themselves with the measuring devices, the IU investigators underwent training.

—

[1] *General Contract of Use for Wagons*

5 | Seminars

Safety Desk Symposium organised by Infrabel

20 JUNE 2024

The Safety Desk is an advisory body between Infrabel, the railway undertakings and NSA Rail Belgium to discuss safety issues openly. This forum has multiple objectives:

- highlight various experiences in the field in order to learn from them. This should enable railway undertakings and Infrabel to improve their operations or safety;
- identify elements of operational safety, work organisation or traffic regulation, from regulatory texts that could be improved, simplified or clarified;
- discuss the figures and actions concerning signals passed at danger.

"Safety Rocks" Symposium organised by the Union of Railway Contractors (UETF/UASW) in cooperation with Infrabel

10 OCTOBER 2024

During that symposium, railway contractors and the Belgian rail network manager Infrabel came together with the aim of sharing their experiences and working together to find effective and sustainable solutions to improve safety on construction sites. The day was punctuated by plenary presentations and workshops in a friendly atmosphere encouraging exchanges. The event was characterised by two key words: information and awareness-raising. All the players present were driven by a common objective: to make construction sites safer!

"HOF in Risk Management Conference 2024" organised by the ERA

22 AND 23 OCTOBER 2024

As railways have evolved – from steam engines to high-speed trains and digital control systems – the risks that we have to manage have also changed.

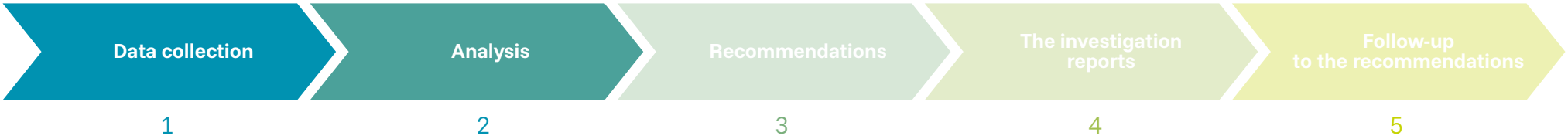
HOF is a mindset, a way of thinking that places human beings at the centre of our safety and risk management strategies.

THE INVESTIGATIONS

THE INVESTIGATIONS

1 | Investigation procedure

The procedure is subdivided in 5 different phases:



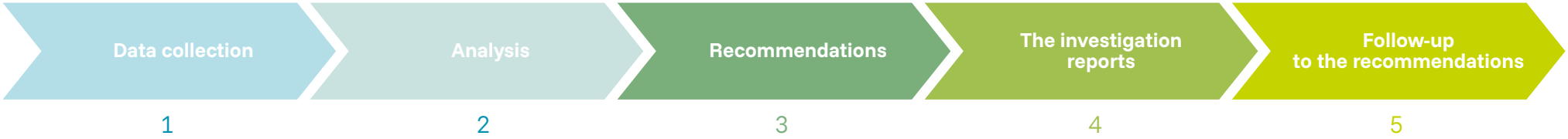
1
Data collection

The railway infrastructure manager immediately telephones the investigator on duty to inform him of serious accidents and incidents, as well as all collisions and derailments on the main line. The practical formalities for these communications are sent by post to the infrastructure manager. The Investigation Unit (IU) can be reached 24 hours a day, 7 days a week. The decision by the IU to open an investigation is communicated to the European Union Agency for Railways, to the Department for Rail Safety and Interoperability, to the railway undertaking and to the infrastructure manager concerned. The actors concerned are consulted from the beginning of the investigation.

The first phase of the investigation involves factual data collection by investigators on the site of the accident or incident. This involves looking for and collecting all the information, descriptive as well as explicative, likely to clarify the causes of an unsafe event. All the information, proof and declarations available and linked to the elements in a situation which have led to the accident or incident, are evaluated, to check what can be considered as relevant or not. The most probable scenario is then established.

2
Analysis

The careful analysis of a safety management system with three dimensions (technical, human and organisational) allows possible failures and/or inadequacies to be revealed. And this at different levels of the system and in particular in the management of risks, with the aim of preventing accidents and incidents.



3 Recommendations

The recommendations in the area of safety are proposals that the IU makes in order to improve safety on the railway system. The recommendations are centred around the prevention of accidents. Their role is threefold: minimising the number of potential accidents, limiting their consequences and finally to lessen the seriousness of resulting damage. The IU addresses, formally, the National Safety Authority with recommendations resulting from their investigation into the accident. If it turns out to be necessary due to the nature of the recommendations, the IU also addresses other Belgian authorities or other Member States of the European Union.

4 The investigation reports

The investigation reports serve as a reminder and archive, but also allow the lessons learned from accidents and/or incidents to be recognised. Their goal is to encourage the circulation of knowledge acquired in the course of different analyses.

The preliminary reports are generally sent twice to the actors concerned, to allow them to get to know the analyses and to provide their comments. The goal is not to alter the content of the report, but to add any necessary details. The conclusions and recommendations are a part of the draft final report sent to the actors concerned. The changes accepted by the IU are then incorporated into the reports. Further investigations are sometimes necessary to remove any ambiguities or to verify new elements made available to the IU.

5 Follow-up to the recommendations

The law specifies that the addressees of the recommendations inform the IU, at least once a year, of the follow-up to the recommendations. The inspection of the operational follow-up given to recommendations made are not part of the IU duties. The monitoring of this implementation falls to the National Safety Authority for the railways, according to Directive 2004/49/EC.

2 | Cases subject to an investigation

An accident is defined as an event which is undesirable, unintentional and unforeseen, or a particular chain of events of this kind, having detrimental effects.

According to the Law of 30 August 2013 and the Law of 20 January 2021, the Investigation Unit (IU) carries out an investigation following every serious accident occurring on the railway system. A serious accident is defined as any train collision or any derailment causing at least one death or at least five serious injuries, or causing major damage to the rolling stock, to the infrastructure or to the environment, as well as any similar accident having the same consequences and obvious impact on the regulations or the management of railway safety. "Extensive damage" means damage that an investigative body can immediately estimate a value of at least EUR two million in total.

In addition to serious accidents, the IU may also investigate those accidents and incidents which under slightly different conditions might have led to serious accidents, including technical failures of the structural subsystems or of interoperability constituents of the Union rail system.

The IU receives from the infrastructure manager and the railway undertakings:

› **Reports**, within 24 hours, on all incidents and accidents occurring on the Belgian railway network;

› **Summary reports**, within 72 hours, of operating incidents and accidents.

They are put into two separate databases: one with the reports and the other with the summarised reports.

The accidents and incidents are sorted in the database according to the elements provided by the railway undertaking and the infrastructure manager, according to three levels of seriousness: serious, significant and other.

—

[1] Article 19 (1) of Directive 2004/49

ACCIDENT / INCIDENT
LEVEL 1: SERIOUS [1]

Any type of accident/incident resulting:

- in the **death of at least one person** or
- **serious injuries to five or more persons** or
- causing **extensive damage to the rolling stock, to the infrastructure or to the environment**; "extensive damage" meaning damage that an investigation body can immediately estimate at a value of **at least EUR two million in total**.

ACCIDENT / INCIDENT
LEVEL 2: SIGNIFICANT

Any type of accident/incident resulting:

- in **serious injuries to at least one person** or
- causing damages assessed to be worth **at least EUR 150,000** or
- suspension of rail traffic for **over six hours**.

ACCIDENT / INCIDENT
LEVEL 3: OTHER

Accidents and incidents that do not fall into **the other two categories**.

The decision to open an investigation is taken by the IU independently on the basis of this information, potentially supplemented by a preliminary enquiry.

OPENED INVESTIGATIONS IN 2024

OPENED INVESTIGATIONS IN 2024

Five investigations were opened in 2024: of these five investigations, one accident meets the definition of serious accident.

When opening an investigation, the investigation unit publishes in the month following the accident or incident a bulletin of general information on its website to inform of the decision to open an investigation.

SIGNIFICANT ACCIDENT: LEVEL 2

Belsele: collision between an empty passenger train and a railway crane

Facts

Planned works on line 59 at Belsele require two railway cranes to be placed on track B near level crossing 35 on the night of Wednesday 13 March.

To get to this location, one of the two railway cranes follows the cycle highway that runs along track A of L59 on the night of Tuesday 12 March.

At about 11:20 p.m., the railway crane tumbles down the sagging cycle highway and enters the clearance gauge of track A of L59 near kilometre marker 27.662.

BULLETIN OF GENERAL INFORMATION

www.rail-investigation.be/en/investigation-fiche/?enquete_id=5215

The driver of the railway crane manages to leave his cab.

At about 11:21 p.m., the empty passenger train EM2772 hits the railway crane and derails with four bogies.

While derailing, train EM2772 covers about another 300 metres and comes to a halt in rear of level crossing 38. The second carriage, derailed, is in the space between the tracks, a few tens of centimetres from the clearance gauge of track B.

At the same time, the driver of passenger train E1822, running in the opposite direction on track B, sees sparks at the level of the catenary and performs an emergency braking.

During braking, train E1822 passes the derailed train, a few tens of centimetres from the second carriage of train EM2772.

Train E1822 comes to a halt in time to avoid a collision with debris and part of a catenary gantry support, which was bent following the accident.

OTHER ACCIDENT: LEVEL 3

Schaerbeek: collision of a locomotive with an empty, parked passenger train

Facts

On Monday 13 May 2024, the empty passenger train ER415 (SNCB/NMBS) is parked on track 727 of marshalling yard R in Schaerbeek. ER415 must be taken to the carwash the same day.

Just before 11:11 a.m., shunting locomotive HLR 7755 departs from track 720 at marshalling yard G in Schaerbeek to track 727 of marshalling yard R in Schaerbeek to couple with ER415 and then take ER415 to the carwash with a pushing movement.

BULLETIN OF GENERAL INFORMATION
www.rail-investigation.be/en/investigation-fiche/?enquete_id=5294

At around 11:11 a.m., the driver of locomotive HLR 7755 collides with the head of ER415 on track 727 at marshalling yard R in Schaerbeek while carrying out the shunting operation. Three SNCB/NMBS railway employees are injured and the front locomotive of ER415 is damaged.

OTHER ACCIDENT: LEVEL 3

Mechelen: runaway of a passenger train

Facts

On Friday 24 May 2024, passenger train E3458 arrives at platform 5 at Mechelen station and is uncoupled into two trains E3480 and E3481. At around 09:16 a.m., during this uncoupling manoeuvre, passenger train E3480 with no railway staff on board runs away from platform 5 of Mechelen station. The train with about 30 passengers on board runs through a switch on track B of line 53. The passenger train comes to a halt after a train passenger operates the emergency brake.

BULLETIN OF GENERAL INFORMATION
www.rail-investigation.be/en/investigation-fiche/?enquete_id=5267

OTHER ACCIDENT: LEVEL 3

Zeebrugge: train mistakenly shunted onto an occupied track

Facts

On Thursday 20 August 2024 at 01:58 p.m., E47576 (Recklinghausen Ost – Zeebrugge Pelikaan fan of sidings, Lineas, 23 wagons) arrives at track 869 in the Zeebrugge Pelikaan fan of sidings, and the train driver notices several wagons on the track. The train driver performs an emergency braking and can thus avoid a collision. The train driver continues by driving at a walking pace in order to clear level crossing 6 and comes to a standstill 5 metres in rear of the wagons involved.

The train driver contacts Block 7 Brugge. The wagons appear to be from Z65902 (Crossrail).

BULLETIN OF GENERAL INFORMATION
www.rail-investigation.be/en/investigation-fiche/?enquete_id=5573

SERIOUS ACCIDENT: LEVEL 1

Antwerpen-Noord: derailment of 2 tank wagons during a hump shunting operation

Facts

On 31 October 2024, at 5:10 p.m., during a hump shunting operation in the Antwerpen-Noord C2 fan of sidings, two wagons derail on track 222 at the level of the rail brake.

The wagons overturn, partly on the adjacent track 221. The tank of the first wagon is pierced during the derailment: a large quantity of toluene (a highly flammable dangerous good) leaks out, causing pollution and requiring the intervention of the specialist fire brigade of BASF.

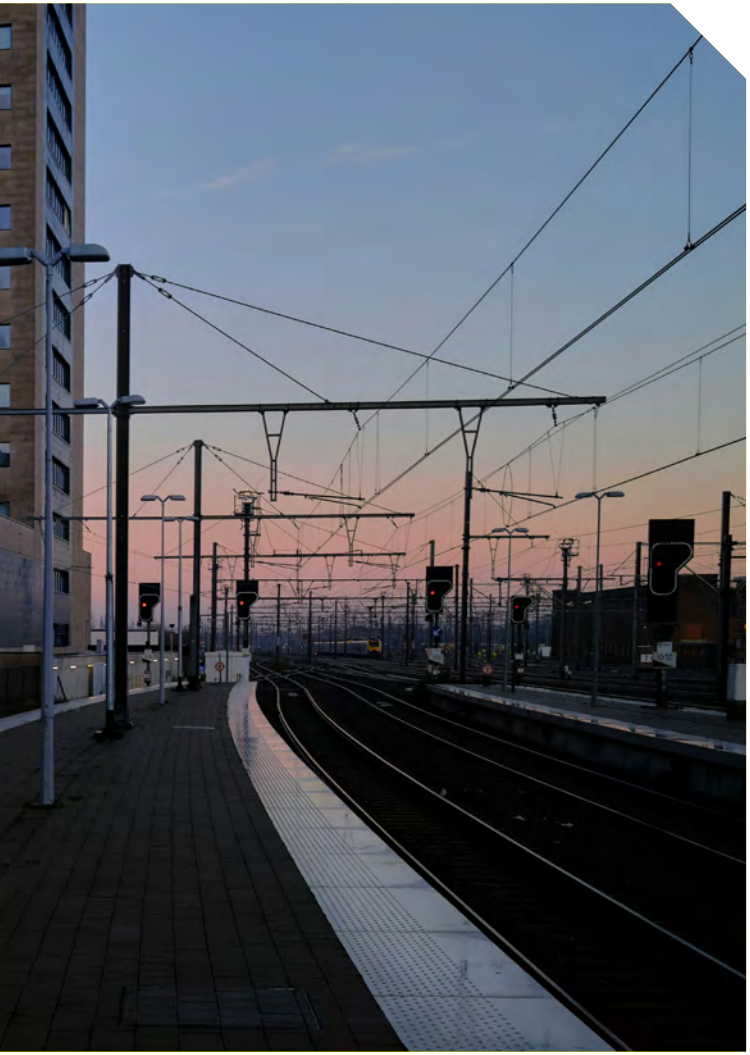
The estimated damage exceeds €2 million: the accident meets the definition of a serious accident.

BULLETIN OF GENERAL INFORMATION

www.rail-investigation.be/en/investigation-fiche/?enquete_id=5634

CLOSED INVESTIGATIONS IN 2024

CLOSED INVESTIGATIONS IN 2024



Two investigations were closed in 2024 Quévy and Denderleeuw.

All reports and summaries of closed investigations are available on the IU website.
In its reports and summaries, the IU provides information on the causes and factors that contributed or may have contributed to an accident or incident.

Any use of a 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.

Investigation reports on accidents and safety incidents are meant to provide lessons from past accidents and incidents. They should help to identify safety risks and eliminate all similar risks related to safety in the future, and also allow actors in the rail sector to revise their evaluations of risks tied to their activities, to update their safety management systems where necessary and, especially, to adopt corrective measures.

SERIOUS ACCIDENT: LEVEL 1

Quévy: death by electrocution of a private tree trimmer

DESCRIPTION OF THE EVENT

On Monday 10 July 2023, at around 11:20 a.m., the Power Dispatcher in Mons notices that the switch for the power supply to the 25 kV~ catenary at Quévy station, close to the border with the French rail network, is tripping.

As this switch is managed by the Belgian infrastructure manager and their French counterpart, the Power Dispatcher in Mons contacts the Lille Flandres central substation regulator: the latter confirms that they did not operate this switch.

Trying to reclose the switch causes it to trip again, indicating that a fault (25 kV~ short-circuit) has occurred.

The Power Dispatcher in Mons applies protection (case of Table I) and requests an inspection of the catenary by a team of Infrabel employees.

At 11:24 a.m., the signal cabin notices faults with the track circuits on track A of line 96 at Quévy. The RIOC (Rail Infrastructure Operation Center) contacts the "Signalling" department, which sends out employees to check the track. These employees arrive on the premises at around 12:00 p.m.

source : Infrabel

While investigating the source of the tripping, Infrabel employees discover that trimming work by a private company is in progress. The work is taking place in a property close to the tracks at Quévy station: a branch is hanging over a catenary earth cable. One employee of the "Signalling" department urges to stop trimming work immediately.

An employee of the duty office 3x8 arrives on the premises at around 12:40 p.m. and makes sure that the trimming work remains at a standstill until the employees of the "Catenaries" department arrive.

The Power Dispatcher in Mons is informed of the location of the findings and directs the employees of the "Catenaries" department to that location.

At around 1:15 p.m., the employees of the "Catenaries" department talk to the tree trimmer on the one hand and to the Power Dispatcher in Mons on the other hand:

- the tree trimmer confirms that he is able to remove the branch hanging over the catenary earth cable himself;
- safety measures are put in place to remove the branch from the catenary earth cable.

At around 2:00 p.m., the upper part of a fir tree that the tree trimmer is cutting touches a 25 kV~ cable, creating an electric arc. The tree trimmer is fatally electrocuted.

CAUSAL FACTOR

The fall of the tree onto the 25 kV AC feeder created an electric arc, electrocuting the tree trimmer.

CONTRIBUTING FACTOR NO 1
Ambient conditions

The height of the tree contributed to the accident. Because of the height reached by the tree,

- a professional tree trimmer was called in by the line-side resident, owner of the tree;
- the upper part of the tree, once cut and without anything to hold it back, could reach the feeder.

CONTRIBUTING FACTOR NO 2
Working conditions

The tree trimmer did not carry out his work as prescribed:

- he was supposed to remove a branch that had fallen onto a catenary cable, and not to cut off the upper part of the tree;
- no measures were taken to prevent the upper part of the tree from falling onto the feeder once it was cut.

CONTRIBUTING FACTOR NO 3
Communication

The "Catenaries" department employees put safety measures in place and passed them on to the tree trimmer. The implementation of these measures may have given the tree trimmer a false sense of security, leading him to cut the upper part of the tree quickly.

SYSTEMIC FACTOR NO 1
Regulations

Article 20 of the railway policing act of 28 April 2018 specifies the maximum height of vegetation along tracks. The height and growth rate of the tree concerned suggest that it exceeded the authorised size for more than a year. It seems that the monitoring of vegetation by the owner-lineside resident failed to detect the out-of-tolerance size earlier.

SYSTEMIC FACTOR NO 2
Monitoring

The track inspections scheduled twice a year in the procedures of Infrabel include the monitoring of vegetation in the vicinity of tracks. These inspections failed to reveal that the trees concerned along line 96 in Quévy exceeded the authorised size limit.

SUMMARY OF THE REPORT

www.rail-investigation.be/en/investigation-fiche/?enquete_id=4976

Recommendations

The RAIIU issues 3 recommendations:

- The Investigation Unit recommends the DRSI to ensure that the Infrastructure Manager takes the necessary steps to make sure that the quality and clarity of the information provided in case of emergency limits the risk of misunderstanding.
- The Investigation Unit recommends the DRSI to ensure that the Infrastructure Manager takes the necessary steps to make sure that the monitoring of vegetation in the vicinity of tracks complies with legal and regulatory requirements.
- The Investigation Unit recommends that the professional federations representing tree trimmers and other park and garden maintenance professionals make sure that the risks associated with the presence of railway infrastructure elements in the vicinity of trees on which their members have to work are known, and that their members are informed of these risks and of the necessary contacts.

SUMMARY OF THE REPORT
www.rail-investigation.be/en/investigation-fiche/?enquete_id=4981

SIGNIFICANT ACCIDENT: LEVEL 2

Denderleeuw: near-collision between an empty passenger train and another passenger train

DESCRIPTION OF THE EVENT

On 11 July 2023, at around 8:20 p.m., the empty SNCB/NMBS passenger train EM1590 leaves platform 9 at Denderleeuw station to perform a shunting movement in the direction of the M fan of sidings located next to Denderleeuw station.

The shunting movement is initially directed to the dead-end track 091.

On dead-end track 091, the train driver switches front in order to move train EM1590 to track 080 of the M fan of sidings.

There is a buffer stop at the end of the dead-end track.

The driver of train EM1590 travels the entire length of dead-end track 091 and hits the buffer stop, resulting in the derailment of one of the bogies of train EM1590. This bogie derails in the direction of track A of line 89.

At around 8:27 p.m., SNCB/NMBS passenger train E5141 leaves Denderleeuw station and runs towards Burst station on track A of line 89.

About one kilometre in advance of Denderleeuw station, at the level of the derailed train EM1590, train E5141 hits a piece of the buffer stop, after which the train driver brings train E5141 to a standstill.

Both trains are only a few centimetres apart.

Both train drivers do not transmit a GSM-R alarm call after the incident.

CAUSAL FACTOR

The near-collision by passenger train E5141 is caused by the encroachment of the empty passenger train EM1590 on the clearance gauge of track A of line 89.

CONTRIBUTING FACTOR NO 1

The first contributing factor is that due to the lack of attention to the shunting movement, the train driver does not see the buffer stop with marker board at the end of the dead-end track 091, causing him to neither slow down nor brake.

The RAIIU does not make a recommendation.

In response to the near-collision between passenger trains E5141 and EM1590, the railway undertaking SNCB/ NMBS is, on the one hand, taking actions to remind and raise awareness among train drivers about the importance of vigilance in the driver's cab and the prevention of distractions from external elements.

According to the RAIIU investigation, the driver of the empty passenger train (EM1590) was not in a telephone call at the time of the collision with the buffer stop.

An additional observation is that during interviews with several train drivers, occasional use of mobile phones was repeatedly mentioned as a source of distraction or loss of concentration: by answering a call or reading a text message during a break, a train driver's thoughts about it can lead to distraction.

Train drivers receive training and various instructions regarding the use of mobile phones: in the driver's cab, mobile phones (and more extensively private multimedia devices) must be switched off and stowed away.

Recommendation

The RAIIU recommends the DRSI to verify the measures taken and controls implemented with regard to the use of private multimedia devices within railway undertakings.

CONTRIBUTING FACTOR NO 2

The second contributing factor is that after the collision with the buffer stop and the derailment of the empty passenger train EM1590, the train driver does not transmit a GSM-R alarm, but uses his service mobile phone.

The priority means of communication between the train driver and the signal box is the GSM-R, which must always be switched on. Other possible means are considered as backup means of communication. The transmission of a GSM-R alarm is a group call that addresses all GSM-R devices in service that are within the call zone.

In the absence of a GSM-R alarm, it is not immediately obvious to the signal box that there is a serious situation and no immediate safety measures are taken.

CONTRIBUTING FACTOR NO 3

The third contributing factor is that the standardised safety communication as provided for in the procedures is not applied between the train driver and the traffic controller.

Regulations have been developed within both the infrastructure manager Infrabel and the railway undertaking SNCB/NMBS to immediately inform each other of situations that compromise the safety, performance and/or availability of both the railway network and the rolling stock.

The driver of the empty passenger train EM1590 does not start his call with the message "Alarm Alarm". Consequently, it is not immediately obvious to the signal box that there is a serious situation requiring immediate safety measures.

CONTRIBUTING FACTOR NO 4

The fourth contributing factor is the non-application of permanent coverage of the track (section) by the signal box as provided for in the procedures.

An accident requires the application of immediate safety and alarm measures to limit the consequences of the accident. Priority is given to urgently stopping train traffic. This includes closing the controlled stop signals which give access to the scene of the accident.

The RAIIU does not make a recommendation for these last three contributing factors. The railway undertaking SNCB/NMBS is taking actions to remind and raise awareness among train drivers about correctly transmitting alarm calls, conducting correct safety communication and correctly implementing the immediate safety measures in case of an accident. The infrastructure manager Infrabel is taking actions to raise awareness among traffic controllers. Through e-learning modules, Infrabel wants to guarantee a good approach among signal box staff to sending and managing alarm calls. Role-playing cases are being developed as part of continuous training on

safety communication. A poster clarifying the basic principles of good communication will also be developed and distributed.

SYSTEMIC FACTOR

The systemic factor is that there was no certainty regarding the operation of the GSM-R of the passenger train after the accident.

Training of train drivers is in accordance with national and European provisions, with theoretical and practical training being provided regarding the operation of the GSM-R and the transmission of a GSM-R alarm.

The functionalities and operation of the GSM-R in the driver's cab are always the same.

When the driver's cab is taken out of service, GSM-R can be switched on via the emergency control as provided for in the train driver's manual.

Recommendation

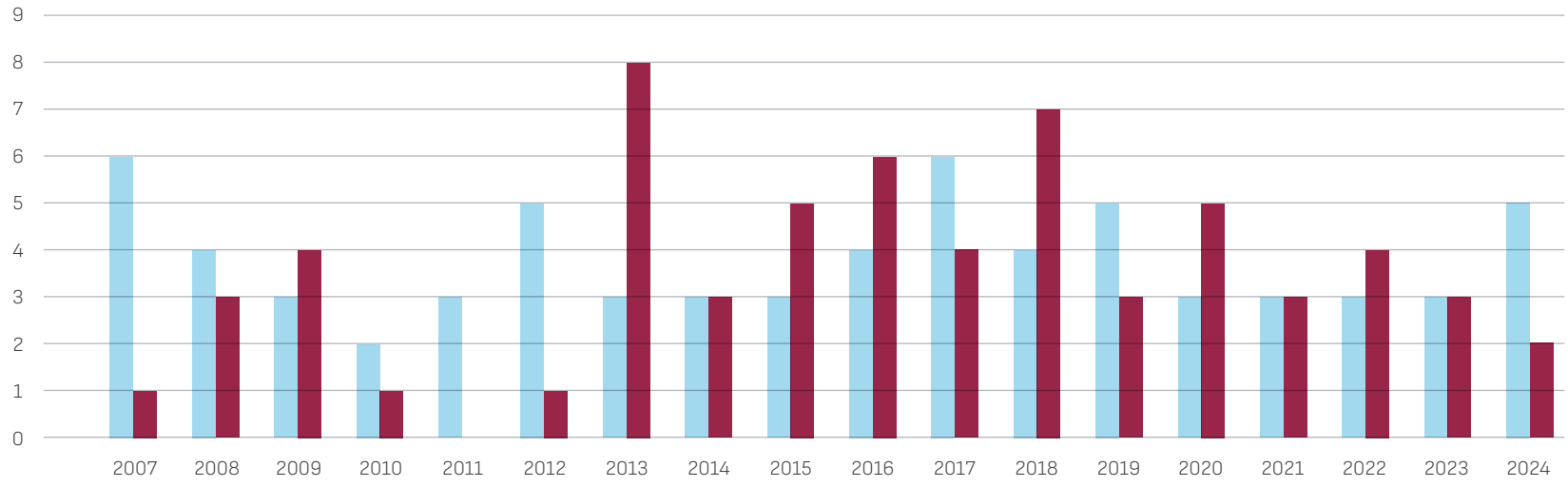
The RAIIU recommends the DRSI to verify the measures taken and controls implemented with regard to the use of GSM-R within railway undertakings.


Vertrek
13 21
14:48 Kortrijk IC 9
Deze trein stopt in: Brugge, Zedelgem, Torhout, Lichtervelde, Roeselare, Izegem, Ingelmunster, Kortrijk, Oudenaarde, Munkzwalm, Zottegem, Denderleeuw, Brussel-Zuid, Bruss-Centr, Bruss-Noord, Bru Airport.
15:09 Antwerpen-Centraal IC 5
Deze trein stopt in: Brugge, Gent-St-P, Gent-Damp, Lokeren, Sint-Niklaas, Beveren , Antw-Zuid, Antw-Berchem, Antwerpen-C.
15:43 Welkenraedt IC 5
Deze trein stopt in: Brugge, Gent-St-P, Brussel-Zuid, Bruss-Centr, Bruss-Noord, Leuven, Luik-Guill, Verviers-C, Welkenraedt.
15:48 Kortrijk IC 9
Deze trein stopt in: Brugge, Zedelgem, Torhout, Lichtervelde, Roeselare, Izegem, Ingelmunster, Kortrijk, Oudenaarde, Munkzwalm, Zottegem, Denderleeuw, Brussel-Zuid, Bruss-Centr, Bruss-Noord, Bru Airport.
EQUANS

STATISTICS

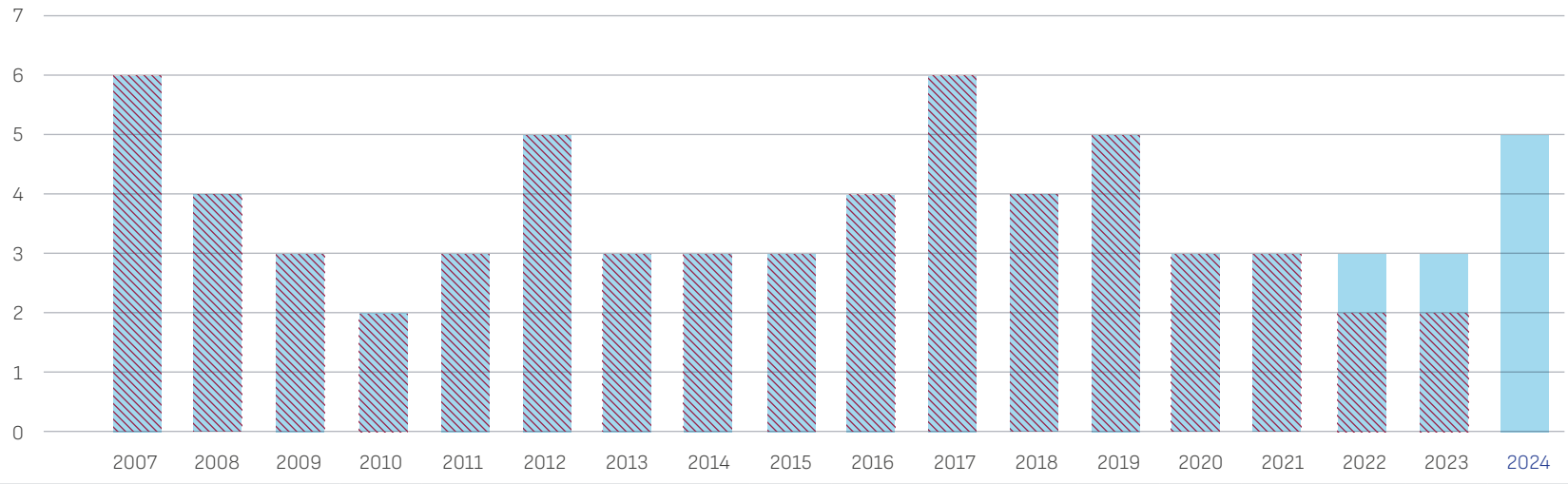
STATISTICS

Number of investigations in the course of the year



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number of investigations opened	6	4	3	2	3	5	3	3	3	4	6	4	5	3	3	3	3	5
Number of investigations closed	1	3	4	1	0	1	8	3	5	6	4	7	3	5	3	4	3	2

Balance of opened and closed investigations



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number of investigations opened regarding the year	6	4	3	2	3	5	3	3	3	4	6	4	5	3	3	3	3	5
Number of investigations closed regarding the year	6	4	3	2	3	5	3	3	3	4	6	4	5	3	3	2	2	0

Number of investigations on museum railway lines

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number of investigations opened	–	–	–	–	–	–	–	–	–	1	0	0	0	0	0	0	0	0
Number of investigations closed	–	–	–	–	–	–	–	–	–	0	1	0	0	0	0	0	0	0

Investigation types opened by the IU

LEVEL 1

Serious accidents

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	TOTAL
Collision	1	1	0	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	**6**
Derailment	0	0	1	0	0	0	1	0	0	0	2	0	0	1	0	0	0	1	**6**
Accident at level crossing	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	**2**
Accident involving a person caused by rolling stock	3	1	1	0	0	1	0	0	0	0	1	0	0	0	1	1	0	0	**9**
Fire in rolling stock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**1**
	4	**2**	**2**	**1**	**0**	**2**	**1**	**0**	**1**	**1**	**4**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	24

Investigation types opened by the IU

LEVEL 2
Significant accidents

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	TOTAL
Collision	1	1	0	0	1	1	1	1	0	1	0	0	0	0	0	0	1	1	**9**
Derailment	1	0	0	0	0	2	1	0	1	0	0	1	1	1	1	1	0	0	**10**
Accident at level crossing	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Accident involving a person caused by rolling stock	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	**3**
Fire in rolling stock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Other	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	**1**
	2	**2**	**1**	**0**	**1**	**3**	**2**	**1**	**1**	**2**	**0**	**1**	**2**	**1**	**1**	**1**	**2**	**1**	24

Investigation types opened by the IU

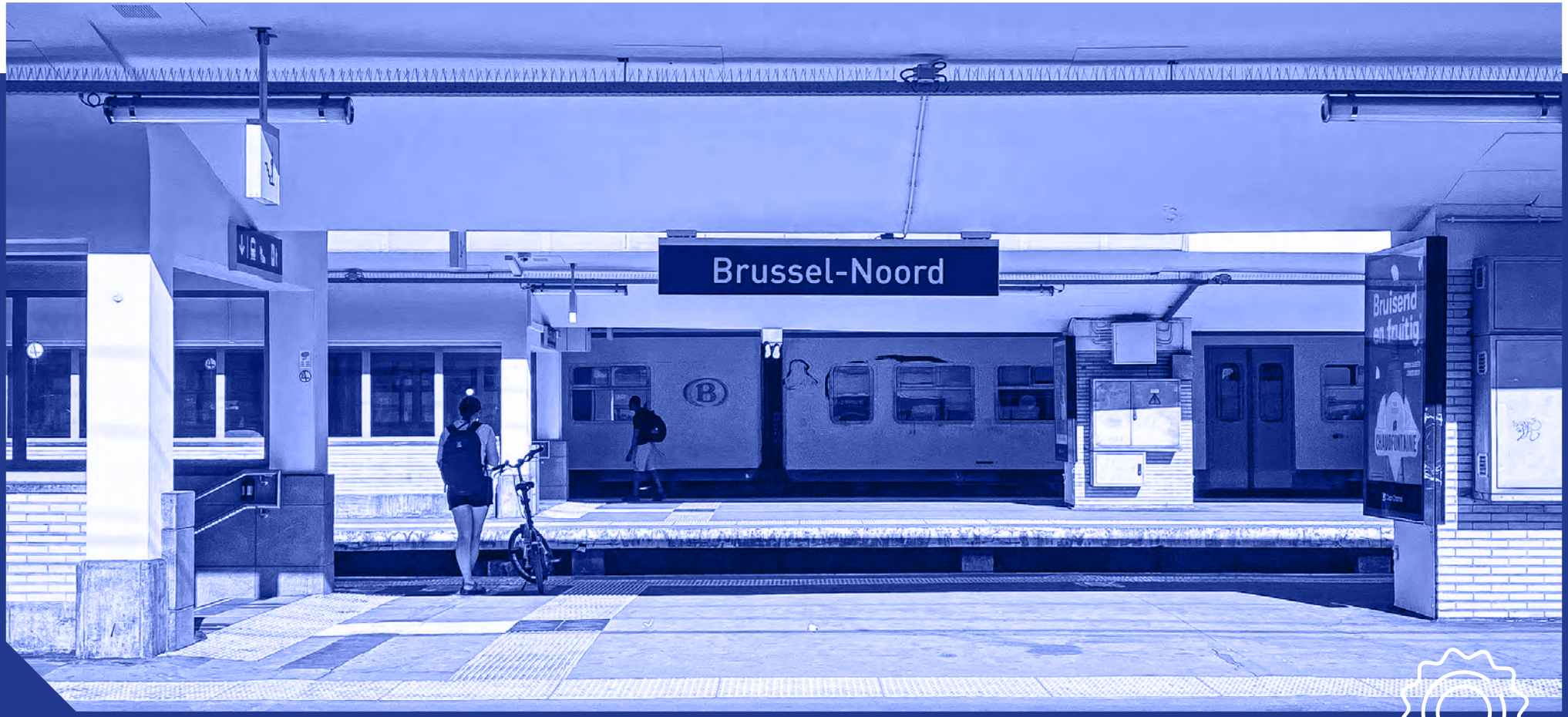
LEVEL 3

Other accidents / incidents

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	TOTAL
Collision	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	**2**
Derailment	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	**3**
Accident at level crossing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Accident involving a person caused by rolling stock	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	**2**
Fire in rolling stock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Other	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	2	
SPAD	0	0	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	**11**
Incident signalling	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	0	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**1**	**1**	**2**	**3**	**2**	**1**	**1**	**1**	**0**	**3**	18

Museum railway lines / Other

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	TOTAL
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**



RECOMMENDATIONS

RECOMMENDATIONS

The process of drafting a recommendation is based on the ERA guide **"Guidance on safety recommendations in terms of article 25 of Directive 2004/49/EC".**

The NIB's role is to investigate accidents and incidents and through analysis decide if the lessons learned from an occurrence require a recommendation that would facilitate safety improvement. The role of NIBs is limited to the safety aspects.

Relating to safety recommendations issued by the NIB, the NSA's role is to ensure the NIBs recommendations are duly taken into consideration and, where appropriate, acted upon."

As these parties have responsibility for safety according to Directive 2004/49/EC, they will make proposals for solutions to the NSA. It is for the NSA to accept the proposal or to require other or additional measures.

Sometimes, an investigation report does not include any recommendation.

So in many cases the responsible actor in the railway sector may have already reacted appropriately and in consultation with the NSA and the NIB before the investigation is finished, and supporting evidence of implementation is available. In such cases it should be considered carefully whether a safety recommendation is necessary or not. Actors should not wait for a recommendation before taking action to improve safety following an accident or incident.

In practice, the actors concerned are informed of any deficiency found during an investigation through the various meetings held and the draft reports sent.

The investigation results are brought to the attention of the various stakeholders well before the publication of the investigation report.

The actions taken by the actors concerned and the recommendations are included in the draft investigation report.

Where an addressee would not fall within the scope of the actors that are under the umbrella of the NSA, the NIB may address recommendations directly to other bodies or authorities in the Member States, usually outside of the railway sector, which have the power to enforce the recommended measures.

The follow-up of the recommendations is carried out by the National Safety Authority, i.e. the DRSI. According to the procedures defined by the DRSI, the actors concerned are responsible for providing an action plan after the publication of the IU investigation report.

Each year by 30 June, the DRSI or the companies to which the recommendations apply have to send a follow-up report to the IU.

According to DRSI procedures, reports published in the second half of the year are not included in the yearly follow-up report.

Therefore, the enclosed followup report focuses on the recommendations of investigation reports closed in the second half of 2023 and the first half of 2024 as well as the outstanding recommendations.

LIEU DE L'ÉVÉNEMENT : NOORDERKEMPEN
DATE DE L'ÉVÉNEMENT : 11/02/2019
N° RECOMMANDATION : 1

DATE DE PUBLICATION DU RAPPORT : 09/2020
ADRESSÉE AU : SSICF
EXÉCUTION PAR : INFRABEL

Constat - Analyse

Le troisième facteur indirect est l'action précipitée de l'agent du mouvement de l'équipe du matin, qui arrive et reprend le travail de l'équipe précédente sans qu'il n'y ait d'intervention d'un superviseur au moment du changement d'équipe.

Recommandation

Il est recommandé au SSICF de veiller à ce que le gestionnaire de l'infrastructure gère les conditions de travail dynamiques qui surviennent lors du changement d'équipe de manière à éviter les décisions hâtives qui pourraient mettre en danger l'exploitation.

Suivi par l'entreprise Infrabel

Phase proposée par l'entreprise : phase 4 : élaboration d'un plan de réalisation

Le POC à Mons est en cours. Les avantages et les désavantages seront évalués ultérieurement.

Commentaire du SSICF

Phase décidée par le SSICF : phase 4 : élaboration d'un plan de réalisation

LIEU DE L'ÉVÉNEMENT : WALENHOEK
DATE DE L'ÉVÉNEMENT : 06/02/2020
N° RECOMMANDATION : 1

DATE DE PUBLICATION DU RAPPORT : 12/2021
ADRESSÉE AU : SSICF
EXÉCUTION PAR : CFL CARGO

Constat - Analyse

Facteur systémique - 1
Le danger d'éblouissement par le soleil n'a pas été correctement identifié par l'entreprise ferroviaire.

Recommandation

Le SSICF doit veiller à ce que les utilisateurs de l'infrastructure soumettent le danger d'éblouissement du conducteur de train (dû au soleil) à une analyse de risques prouvant que les mesures appropriées de gestion des risques ont bien été prises.

Suivi par l'entreprise CFL Cargo

Phase proposée par l'entreprise : phase 7 : si efficace, clôture de la recommandation

La documentation métier des conducteurs est adaptée afin de sensibiliser le conducteur aux risques liés, notamment, à l'éblouissement.
Le document RF_307-COO prescrit au conducteur la conduite à tenir en cas de mauvaise visibilité constatée lors de l'observation de la signalisation, que ce soit en mouvement ou à l'arrêt.
Ces prescriptions sont harmonisées pour les circulations sur les réseaux belge et luxembourgeois.

Commentaire du SSICF

LIEU DE L'ÉVÉNEMENT : WALENHOEK
DATE DE L'ÉVÉNEMENT : 06/02/2020
N° RECOMMANDATION : 1

DATE DE PUBLICATION DU RAPPORT : 12/2021
ADRESSÉE AU : SSICF
EXÉCUTION PAR : THI FACTORY

Constat - Analyse

Facteur systémique - 1
Le danger d'éblouissement par le soleil n'a pas été correctement identifié par l'entreprise ferroviaire.

Recommandation

Le SSICF doit veiller à ce que les utilisateurs de l'infrastructure soumettent le danger d'éblouissement du conducteur de train (dû au soleil) à une analyse de risques prouvant que les mesures appropriées de gestion des risques ont bien été prises.

Suivi par l'entreprise THI Factory

Phase proposée par l'entreprise : phase 2 : analyse des recommandations proposées par l'OE

Prise en compte de la recommandation en comité de veille réglementaire de février 2022. Un contrôle des moyens mis à disposition des TD (TD = conducteurs de train) a été effectué. Pour les TD avec lunettes de vue, choix entre 2 options : applique sur les lunettes correctrices ou lunettes de soleil sans verres correcteurs , OU prévoir des lunettes de soleil avec verres correcteurs

Commentaire du SSICF

Phase décidée par le SSICF : phase 2 : analyse des recommandations proposées par l'OE

Phase 2 acceptée.A noter: il est attendu de l'entreprise de confirmer qu'une AR a bien été réalisée sur ce sujet et que la mise à disposition des lunettes de soleil aux conducteurs constitue la mesure permettant de rendre le risque acceptable.

Lieu de l'événement : Walenhoek
Date de l'événement : 06/02/2020
N° recommandation : 1

Date de publication du rapport : 12/2021
Adressée au : SSICF
Exécution par : RTB Cargo BE (Trainsport)

Constat - Analyse

Facteur systémique - 1
Le danger d'éblouissement par le soleil n'a pas été correctement identifié par l'entreprise ferroviaire.

Recommandation

Le SSICF doit veiller à ce que les utilisateurs de l'infrastructure soumettent le danger d'éblouissement du conducteur de train (dû au soleil) à une analyse de risques prouvant que les mesures appropriées de gestion des risques ont bien été prises.

Suivi par l'entreprise RTB Cargo BE (Trainsport)

Phase proposée par l'entreprise : phase 2 : analyse des recommandations proposées par l'OE

Commentaire du SSICF

LIEU DE L'ÉVÉNEMENT : WALENHOEK
DATE DE L'ÉVÉNEMENT : 06/02/2020
N° RECOMMANDATION : 1

DATE DE PUBLICATION DU RAPPORT : 12/2021
ADRESSÉE AU : SSICF
EXÉCUTION PAR : MEDWAY BELGIUM

Constat - Analyse

Facteur systémique - 1
Le danger d'éblouissement par le soleil n'a pas été correctement identifié par l'entreprise ferroviaire.

Recommandation

Le SSICF doit veiller à ce que les utilisateurs de l'infrastructure soumettent le danger d'éblouissement du conducteur de train (dû au soleil) à une analyse de risques prouvant que les mesures appropriées de gestion des risques ont bien été prises.

Suivi par l'entreprise Medway Belgium

Phase proposée par l'entreprise : phase 1d = détection des risques et propositions des recommandations

Au sein de Medway Belgium, il y a une analyse de risques concernant les influences météorologiques.
Des mesures de gestion préventive existent déjà quant à l'information des conducteurs de train (ex. : distribution de lunettes de soleil à titre d'EPI).

Commentaire du SSICF

LIEU DE L'ÉVÉNEMENT : WALENHOEK
DATE DE L'ÉVÉNEMENT : 06/02/2020
N° RECOMMANDATION : 1

DATE DE PUBLICATION DU RAPPORT : 12/2021
ADRESSÉE AU : SSICF
EXÉCUTION PAR : HEXAFRET

Constat - Analyse

Facteur systémique - 1
Le danger d'éblouissement par le soleil n'a pas été correctement identifié par l'entreprise ferroviaire.

Recommandation

Le SSICF doit veiller à ce que les utilisateurs de l'infrastructure soumettent le danger d'éblouissement du conducteur de train (dû au soleil) à une analyse de risques prouvant que les mesures appropriées de gestion des risques ont bien été prises.

Suivi par l'entreprise Hexafret

Phase proposée par l'entreprise : phase 2 : analyse des recommandations proposées par l'OE

Le risque d'éblouissement est un risque historiquement pris en compte dans le SGS de Fret SNCF à travers la formation ainsi que la mise à disposition, en tant qu'équipement de protection individuelle, de lunettes de soleil ou surlunettes de soleil aux conducteur.

Commentaire du SSICF

LIEU DE L'ÉVÉNEMENT : WALENHOEK
DATE DE L'ÉVÉNEMENT : 06/02/2020
N° RECOMMANDATION : 1

DATE DE PUBLICATION DU RAPPORT : 12/2021
ADRESSÉE AU : SSICF
EXÉCUTION PAR : DB CARGO BELGIUM

Constat - Analyse

Facteur systémique - 1
Le danger d'éblouissement par le soleil n'a pas été correctement identifié par l'entreprise ferroviaire.

Recommandation

Le SSICF doit veiller à ce que les utilisateurs de l'infrastructure soumettent le danger d'éblouissement du conducteur de train (dû au soleil) à une analyse de risques prouvant que les mesures appropriées de gestion des risques ont bien été prises.

Suivi par l'entreprise DB Cargo Belgium

Phase proposée par l'entreprise : phase 1e : élaboration d'un plan d'actions et son implémentation

Commentaire du SSICF

Lieu de l'événement : Walenhoek
Date de l'événement : 06/02/2020
N° recommandation : 1

Date de publication du rapport : 12/2021
Adressée au : SSICF
Exécution par : Certus Rail Solutions

Constat - Analyse

Facteur systémique - 1
Le danger d'éblouissement par le soleil n'a pas été correctement identifié par l'entreprise ferroviaire.

Recommandation

Le SSICF doit veiller à ce que les utilisateurs de l'infrastructure soumettent le danger d'éblouissement du conducteur de train (dû au soleil) à une analyse de risques prouvant que les mesures appropriées de gestion des risques ont bien été prises.

Suivi par l'entreprise Certus Rail Solutions

Phase proposée par l'entreprise : phase 1 : mesures prises entre l'accident et de la publication du rapport de l'OE

Commentaire du SSICF

LIEU DE L'ÉVÉNEMENT : ANTWERPEN-NOORD - BUNDLE B & C
DATE DE L'ÉVÉNEMENT : 12/05/2022
N° RECOMMANDATION : 1

DATE DE PUBLICATION DU RAPPORT : 08/2023
ADRESSÉE AU : SSICF
EXÉCUTION PAR : LINEAS

Constat - Analyse

Le gestionnaire d'infrastructure Infrabel et l'entreprise ferroviaire Lineas ont décidé d'échanger des informations et de coopérer sur les facteurs de causalité et de contribution concernant les événements de triage par gravité dans les faisceaux d'Antwerpen-Noord.
Afin de minimiser le nombre d'événements de triage par gravité, ils ont décidé d'élaborer conjointement des mesures structurelles telles que présentées dans le plan d'action sur les incidents avec le système de triage semi□automatique en impliquant également les chargeurs.
Le chapitre 5.2 résume les mesures prises individuellement et conjointement.
Par ailleurs, le SSICF a effectué une inspection des activités de triage par gravité pour le compte du gestionnaire de l'infrastructure et de l'entreprise ferroviaire au cours du second semestre 2022.
Au cours du dernier trimestre de 2022, on a d'ores et déjà observé une diminution du nombre d'événements dans les faisceaux B et C d'Antwerpen-Noord.
Malgré les diverses mesures prises par les parties concernées, le risque d'échappement, de déraillement et de collision demeure bien réel et les conséquences, bien que non significatives à ce jour, sont susceptibles d'être graves.

Recommandation

L'OEAIF recommande au SSICF de veiller à ce que les parties concernées travaillent en collaboration pour vérifier l'efficacité des mesures déjà prises, évaluer les risques (résiduels) et prendre des mesures visant à limiter les risques identifiés

Suivi par l'entreprise Lineas

Phase proposée par l'entreprise : phase 1 : mesures prises entre l'accident et de la publication du rapport de l'OE

Commentaire du SSICF

Phase décidée par le SSICF : phase 2 : analyse des recommandations proposées par l'OE

LIEU DE L'ÉVÉNEMENT : ANTWERPEN-NOORD - BUNDLE B & C
DATE DE L'ÉVÉNEMENT : 12/05/2022
N° RECOMMANDATION : 1

DATE DE PUBLICATION DU RAPPORT : 08/2023
ADRESSÉE AU : SSICF
EXÉCUTION PAR : INFRABEL

Constat - Analyse

Le gestionnaire d'infrastructure Infrabel et l'entreprise ferroviaire Lineas ont décidé d'échanger des informations et de coopérer sur les facteurs de causalité et de contribution concernant les événements de triage par gravité dans les faisceaux d'Antwerpen-Noord.
Afin de minimiser le nombre d'événements de triage par gravité, ils ont décidé d'élaborer conjointement des mesures structurelles telles que présentées dans le plan d'action sur les incidents avec le système de triage semi□automatique en impliquant également les chargeurs.
Le chapitre 5.2 résume les mesures prises individuellement et conjointement.
Par ailleurs, le SSICF a effectué une inspection des activités de triage par gravité pour le compte du gestionnaire de l'infrastructure et de l'entreprise ferroviaire au cours du second semestre 2022.
Au cours du dernier trimestre de 2022, on a d'ores et déjà observé une diminution du nombre d'événements dans les faisceaux B et C d'Antwerpen-Noord.
Malgré les diverses mesures prises par les parties concernées, le risque d'échappement, de déraillement et de collision demeure bien réel et les conséquences, bien que non significatives à ce jour, sont susceptibles d'être graves.

Recommandation

L'OEAIF recommande au SSICF de veiller à ce que les parties concernées travaillent en collaboration pour vérifier l'efficacité des mesures déjà prises, évaluer les risques (résiduels) et prendre des mesures visant à limiter les risques identifiés

Suivi par l'entreprise Infrabel

Phase proposée par l'entreprise : phase 4 : élaboration d'un plan de réalisation

Réunions trimestrielles avec Lineas pour discuter des incidents via un document de travail.
Phase 1 installation de caméras dans l'installation de triage faisceaux B et C est prévue pour juin 2025.

Commentaire du SSICF

Phase décidée par le SSICF : phase 4 : élaboration d'un plan de réalisation

LIEU DE L'ÉVÉNEMENT : BRESSOUX
DATE DE L'ÉVÉNEMENT : 29/08/2022
N° RECOMMANDATION : 1

DATE DE PUBLICATION DU RAPPORT : 07/2023
ADRESSÉE AU : SSICF
EXÉCUTION PAR : LINEAS

Constat - Analyse

Selon l'hypothèse retenue par l'OE, le mauvais positionnement de la charge de balles de cellulose dans le container a contribué au déplacement du centre de gravité vers l'intérieur de la courbe et à une résultante des forces qui a entraîné le délestage des roues droites du premier bogie du wagon.

Le chargement des balles de cellulose dans le container n'est pas conforme à la réglementation des Pays-Bas.

Après le chargement des balles de cellulose et le sanglage de la dernière rangée de balles près de la porte, les portes du container sont refermées et un scellé est posé sur les portes.
Une fois le container chargé sur le wagon, la plaque anti-ouverture située sur le châssis du wagon empêche toute ouverture des portes du container.
L'entreprise ferroviaire n'a pas la possibilité de contrôler la charge d'un container chargé sur ce type de wagon.

Recommandation

L'OE recommande au SSICF de veiller à ce que les acteurs impliqués dans le transport ferroviaire de marchandises (gestionnaire d'infrastructure, entreprises ferroviaires, chargeurs, expéditeurs, etc.) mènent une réflexion et une analyse afin d'identifier les risques liés au transport de wagons/conteneurs potentiellement mal chargés et mettent en œuvre des mesures pour limiter les risques identifiés.

Suivi par l'entreprise Lineas

Phase proposée par l'entreprise : phase 1 : mesures prises entre l'accident et de la publication du rapport de l'OE

Commentaire du SSICF

Phase décidée par le SSICF : phase 2 : analyse des recommandations proposées par l'OE

LIEU DE L'ÉVÉNEMENT : BRESSOUX
DATE DE L'ÉVÉNEMENT : 29/08/2022
N° RECOMMANDATION : 1

DATE DE PUBLICATION DU RAPPORT : 07/2023
ADRESSÉE AU : SSICF
EXÉCUTION PAR : MEDWAY BELGIUM

Constat - Analyse

Selon l'hypothèse retenue par l'OE, le mauvais positionnement de la charge de balles de cellulose dans le container a contribué au déplacement du centre de gravité vers l'intérieur de la courbe et à une résultante des forces qui a entraîné le délestage des roues droites du premier bogie du wagon.

Le chargement des balles de cellulose dans le container n'est pas conforme à la réglementation des Pays-Bas.

Après le chargement des balles de cellulose et le sanglage de la dernière rangée de balles près de la porte, les portes du container sont refermées et un scellé est posé sur les portes.
Une fois le container chargé sur le wagon, la plaque anti-ouverture située sur le châssis du wagon empêche toute ouverture des portes du container.
L'entreprise ferroviaire n'a pas la possibilité de contrôler la charge d'un container chargé sur ce type de wagon.

Recommandation

L'OE recommande au SSICF de veiller à ce que les acteurs impliqués dans le transport ferroviaire de marchandises (gestionnaire d'infrastructure, entreprises ferroviaires, chargeurs, expéditeurs, etc.) mènent une réflexion et une analyse afin d'identifier les risques liés au transport de wagons/conteneurs potentiellement mal chargés et mettent en œuvre des mesures pour limiter les risques identifiés.

Suivi par l'entreprise Medway Belgium

Phase proposée par l'entreprise : phase 1d = détection des risques et propositions des recommandations

Il y a une analyse de risques au sein de Medway Belgium concernant "Chargement non conforme".
Dans ce cas, l'EF ne peut entreprendre aucune action si le résultat d'un chargement non conforme ne peut pas être évalué visuellement au cours de la visite étant donné que l'EF n'est pas autorisé à contrôler le chargement.
Lors de la précédente concertation sur la sécurité, Medway Belgium a demandé au GI quelles mesures celui-ci prévoira pour permettre aux EF d'obtenir des informations plus précises et plus techniques sur le statut d'un convoi/chargement.
Medway Belgium songe ici à des points de mesure sur la voie.

Commentaire du SSICF

LIEU DE L'ÉVÉNEMENT : BRESSOUX
DATE DE L'ÉVÉNEMENT : 29/08/2022
N° RECOMMANDATION : 1

DATE DE PUBLICATION DU RAPPORT : 07/2023
ADRESSÉE AU : SSICF
EXÉCUTION PAR : CFL CARGO

Constat - Analyse

Selon l'hypothèse retenue par l'OE, le mauvais positionnement de la charge de balles de cellulose dans le container a contribué au déplacement du centre de gravité vers l'intérieur de la courbe et à une résultante des forces qui a entraîné le délestage des roues droites du premier bogie du wagon.

Le chargement des balles de cellulose dans le container n'est pas conforme à la réglementation des Pays-Bas.

Après le chargement des balles de cellulose et le sanglage de la dernière rangée de balles près de la porte, les portes du container sont refermées et un scellé est posé sur les portes.
Une fois le container chargé sur le wagon, la plaque anti-ouverture située sur le châssis du wagon empêche toute ouverture des portes du container.
L'entreprise ferroviaire n'a pas la possibilité de contrôler la charge d'un container chargé sur ce type de wagon.

Recommandation

L'OE recommande au SSICF de veiller à ce que les acteurs impliqués dans le transport ferroviaire de marchandises (gestionnaire d'infrastructure, entreprises ferroviaires, chargeurs, expéditeurs, etc.) mènent une réflexion et une analyse afin d'identifier les risques liés au transport de wagons/conteneurs potentiellement mal chargés et mettent en œuvre des mesures pour limiter les risques identifiés.

Suivi par l'entreprise CFL Cargo

Phase proposée par l'entreprise : phase 7 : si efficace, clôture de la recommandation

Dans le cadre du fonctionnement de son SGS, CFL cargo veille à la maîtrise des risques de son exploitation.
A ce titre, les contractants de CFL cargo, dont l'activité génère des risques pouvant avoir une incidence potentielle sur une exploitation sûre du système ferroviaire européen (notamment les chargeurs), font l'objet de contrôle et de surveillance en ce qui concerne la mise en oeuvre des mesures nécessaires de maîtrise du risque.

Commentaire du SSICF

Lieu de l'événement : Bressoux
Date de l'événement : 29/08/2022
N° recommandation : 1

Date de publication du rapport : 07/2023
Adressée au : SSICF
Exécution par : DB Cargo Belgium

Constat - Analyse

Selon l'hypothèse retenue par l'OE, le mauvais positionnement de la charge de balles de cellulose dans le container a contribué au déplacement du centre de gravité vers l'intérieur de la courbe et à une résultante des forces qui a entraîné le délestage des roues droites du premier bogie du wagon.

Le chargement des balles de cellulose dans le container n'est pas conforme à la réglementation des Pays-Bas.

Après le chargement des balles de cellulose et le sanglage de la dernière rangée de balles près de la porte, les portes du container sont refermées et un scellé est posé sur les portes.
Une fois le container chargé sur le wagon, la plaque anti-ouverture située sur le châssis du wagon empêche toute ouverture des portes du container.
L'entreprise ferroviaire n'a pas la possibilité de contrôler la charge d'un container chargé sur ce type de wagon.

Recommandation

L'OE recommande au SSICF de veiller à ce que les acteurs impliqués dans le transport ferroviaire de marchandises (gestionnaire d'infrastructure, entreprises ferroviaires, chargeurs, expéditeurs, etc.) mènent une réflexion et une analyse afin d'identifier les risques liés au transport de wagons/conteneurs potentiellement mal chargés et mettent en œuvre des mesures pour limiter les risques identifiés.

Suivi par l'entreprise DB Cargo Belgium

Phase proposée par l'entreprise : phase 2 : analyse des recommandations proposées par l'OE

Une analyse des risques sera réalisée.

Suite à cet accident, le contrôle sur des wagons mal chargés ou chargés unilatéralement a été portée à l'attention de nos inspecteurs grâce à une formation continue et à l'interprétation correcte du code de dommage 5.1.2 : « La hauteur des tampons des wagons accouplés varie considérablement. »

Commentaire du SSICF

Phase décidée par le SSICF : phase 2 : analyse des recommandations proposées par l'OE

LIEU DE L'ÉVÉNEMENT : BRESSOUX
DATE DE L'ÉVÉNEMENT : 29/08/2022
N° RECOMMANDATION : 1

DATE DE PUBLICATION DU RAPPORT : 07/2023
ADRESSÉE AU : SSICF
EXÉCUTION PAR : INFRABEL

Constat - Analyse

Selon l'hypothèse retenue par l'OE, le mauvais positionnement de la charge de balles de cellulose dans le container a contribué au déplacement du centre de gravité vers l'intérieur de la courbe et à une résultante des forces qui a entraîné le délestage des roues droites du premier bogie du wagon.

Le chargement des balles de cellulose dans le container n'est pas conforme à la réglementation des Pays-Bas.

Après le chargement des balles de cellulose et le sanglage de la dernière rangée de balles près de la porte, les portes du container sont refermées et un scellé est posé sur les portes.
Une fois le container chargé sur le wagon, la plaque anti-ouverture située sur le châssis du wagon empêche toute ouverture des portes du container.
L'entreprise ferroviaire n'a pas la possibilité de contrôler la charge d'un container chargé sur ce type de wagon.

Recommandation

L'OE recommande au SSICF de veiller à ce que les acteurs impliqués dans le transport ferroviaire de marchandises (gestionnaire d'infrastructure, entreprises ferroviaires, chargeurs, expéditeurs, etc.) mènent une réflexion et une analyse afin d'identifier les risques liés au transport de wagons/conteneurs potentiellement mal chargés et mettent en œuvre des mesures pour limiter les risques identifiés.

Suivi par l'entreprise Infrabel

Phase proposée par l'entreprise : phase 2 : analyse des recommandations proposées par l'OE

Le dossier fait l'objet d'une enquête interne.

Commentaire du SSICF

Phase décidée par le SSICF : phase 2 : analyse des recommandations proposées par l'OE

Lieu de l'événement : Bressoux
Date de l'événement : 29/08/2022
N° recommandation : 1

Date de publication du rapport : 07/2023
Adressée au : SSICF
Exécution par : TCA Rail

Constat - Analyse

Selon l'hypothèse retenue par l'OE, le mauvais positionnement de la charge de balles de cellulose dans le container a contribué au déplacement du centre de gravité vers l'intérieur de la courbe et à une résultante des forces qui a entraîné le délestage des roues droites du premier bogie du wagon.

Le chargement des balles de cellulose dans le container n'est pas conforme à la réglementation des Pays-Bas.

Après le chargement des balles de cellulose et le sanglage de la dernière rangée de balles près de la porte, les portes du container sont refermées et un scellé est posé sur les portes.
Une fois le container chargé sur le wagon, la plaque anti-ouverture située sur le châssis du wagon empêche toute ouverture des portes du container.
L'entreprise ferroviaire n'a pas la possibilité de contrôler la charge d'un container chargé sur ce type de wagon.

Recommandation

L'OE recommande au SSICF de veiller à ce que les acteurs impliqués dans le transport ferroviaire de marchandises (gestionnaire d'infrastructure, entreprises ferroviaires, chargeurs, expéditeurs, etc.) mènent une réflexion et une analyse afin d'identifier les risques liés au transport de wagons/conteneurs potentiellement mal chargés et mettent en œuvre des mesures pour limiter les risques identifiés.

Suivi par l'entreprise TCA Rail

Commentaire du SSICF

Lieu de l'événement : Quévy
Date de l'événement : 10/07/2023
N° recommandation : 1

Date de publication du rapport : 07/2024
Adressée au : SSICF
Exécution par : Infrabel

Constat - Analyse

Lors du premier l'appel de l'agent caténaire vers le RES de Mons au moment de l'accident, seul l'incendie de la branche coupée a été mentionné, ce qui n'a pas permis de transmettre l'urgence de la demande de coupure pour électrisation vers le RSS de Lille.

Recommandation

L'OE recommande au SSICF de veiller à ce que le gestionnaire d'infrastructure prenne les mesures nécessaires pour que la qualité et la clarté des informations communiquées en cas d'urgence permettent de limiter le risque d'une mauvaise compréhension.

Suivi par l'entreprise Infrabel

Phase proposée par l'entreprise : phase 2 : analyse des recommandations proposées par l'OE

Commentaire du SSICF

Phase décidée par le SSICF : phase 2 : analyse des recommandations proposées par l'OE

LIEU DE L'ÉVÉNEMENT : QUÉVY
DATE DE L'ÉVÉNEMENT : 10/07/2023
N° RECOMMANDATION : 2

DATE DE PUBLICATION DU RAPPORT : 07/2024
ADRESSÉE AU : SSICF
EXÉCUTION PAR : INFRABEL

Constat - Analyse

Les visites de la voie périodiques (2 fois par an) repris dans les procédures d'Infrabel prévoient de surveiller la végétation aux abords des voies et d'adresser des courriers (dont les modèles et les échéances sont repris dans la procédure) aux riverains-propriétaires des arbres.
Aucun signalement de l'arbre impliqué dans l'accident n'a été retrouvé dans les fiches de contrôle d'Infrabel, et aucun courrier n'a été adressé par Infrabel au propriétaire de l'arbre impliqué.

Recommandation

L'OE recommande au SSICF de veiller à ce que le gestionnaire d'infrastructure prenne les mesures nécessaires pour que les contrôles de la végétation aux abords des voies suivent les prescrits légaux et réglementaires.

Suivi par l'entreprise Infrabel

Phase proposée par l'entreprise : phase 2 : analyse des recommandations proposées par l'OE

Commentaire du SSICF

Phase décidée par le SSICF : phase 2 : analyse des recommandations proposées par l'OE

Rail Accident and Incident Investigation Unit

FPS Mobility and Transport
City Atrium
Rue du Progrès 56
1210 Bruxelles

www.rail-investigation.be