

Annual report 2024

Railway investigations

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The reports issued by the Dutch Safety Board are publicly available on www.safetyboard.nl.

Cover photo: Photo source

The Dutch Safety Board

When accidents or disasters happen, the Dutch Safety Board investigates how it was possible for these to occur, with the aim of learning lessons for the future and, ultimately, improving safety in the Netherlands. The Safety Board is independent and is free to decide which incidents to investigate. In particular, it focuses on situations in which people's personal safety is dependent on third parties, such as the government or companies. In certain cases the Board is under an obligation to carry out an investigation. Its investigations do not address issues of blame or liability.

Dutch Safety Board

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1 INTRODUCTION

Each year the Dutch Safety Board publishes an annual report summarising its investigation activities in the domain of rail traffic. The Dutch Safety Board does so to fulfil its role as National Investigative Body (NIB) of the Netherlands in accordance with the European Railway Safety Directive.

Besides the present report, the Dutch Safety Board publishes a general annual report covering all investigation areas (including rail) as well as organisational and financial developments. The general Annual Report 2024 is available on our website: https://onderzoeksraad.nl/en/.1

¹ https://onderzoeksraad.nl/en/safety-connected-annual-report-2024/

2 THE DUTCH SAFETY BOARD

2.1 Legal basis

The Kingdom Act instituting the Dutch Safety Board came into force on 1 February 2005. It gives the Dutch Safety Board a broad legal mandate: apart from rail accidents and incidents, occurrences in all other transport sectors are also covered. Moreover, safety investigations concerning non-transport issues can and have been performed. For instance, regarding food safety, accidents in the industry (including construction) and crisis management.

The Board has specific and extensive legal powers when it comes to the performance of its investigations. The Kingdom Act sets out strict safeguards for the independence of the Board and for the protection of information. Note that any information gathered in the course of an investigation will not be passed on to third parties. The competencies of the Dutch Safety Board's investigators are regulated in the Kingdom Act.

The essence of the Act is that investigators must be given the greatest possible access to all relevant information. They are allowed to enter buildings in order to gather information, which may include radar images, tape recordings, documents and witness statements, and they may take items with them for further investigation. In addition, the investigators can stipulate that wreckage left after an accident should not be removed from the scene straight away, and that during the initial phase of an investigation the accident site should as far as possible be left in its original state. Naturally, the victims' needs and the provision of aid will take precedence at all times, as do efforts to limit the damage done to equipment and the harm done to the environment. Where possible, the Board's investigators will utilise information of an incident that has been compiled by the police and the judicial authorities. In contrast, the Dutch Safety Board's investigators do not give any information to the police or the judicial authorities.

2.2 Purpose of investigation

In accordance with the Kingdom Act Dutch Safety Board and with applicable EU law, the purpose of the Dutch Safety Board's work is to help the railway sector improve by learning from accidents. Accordingly, the Board's investigation aims not only to uncover the actual causes of incidents but also – and in particular – to bring to light the underlying causes of the incident, so that any shortcomings in the applied system can be revealed. If the investigation reveals any systematic safety-related shortcomings then the Board will formulate recommendations so that these shortcomings can be put right. In rail investigations, recommendations are usually addressed to the competent authorities and to organisations and companies active in the field.

The Board would like to emphasize that issues of blame or liability are not part of its legal mandate. Information gathered during the course of an investigation – including statements provided by the Board, information that the Board has compiled, results of technical research and analyses and drafted documents (including the published report) – cannot be used as evidence in criminal, disciplinary or civil law proceedings.

2.3 Organisation

The Dutch Safety Board consists of a Board that is supported by the bureau. In 2024 the Board had three permanent members and seven extraordinary board members. The bureau had 86 employees in 2024. Most of them are investigators, three of which specialize in rail investigations.

The overall budget of the Safety Board in 2024 was approximately €17 million. For more information see the general annual report.

3 INVESTIGATION PROCESS

3.1 Occurrences to be investigated

Cases to be investigated are accidents where the safety of passengers and staff members, level crossings, infrastructure, rolling stock, safety of protective systems or external safety (the risk for neighbours or the environment in case of accidents with dangerous goods or serious derailments) is involved.

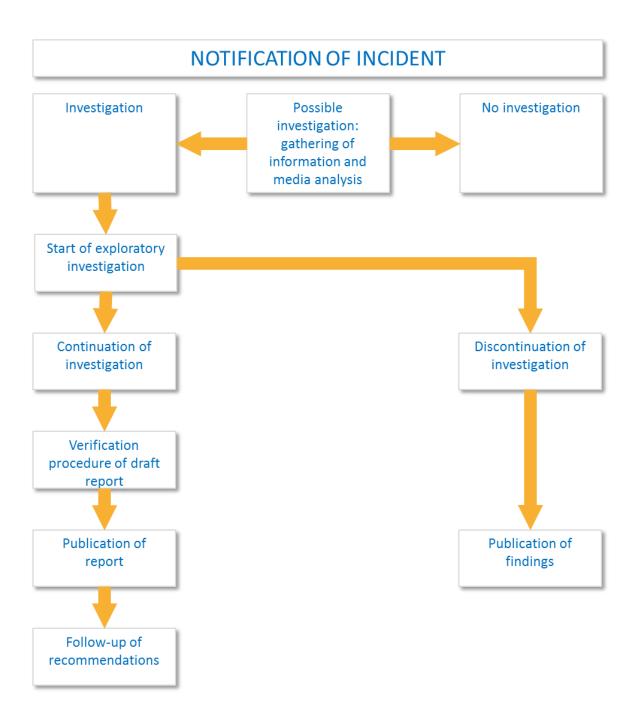
Mandatory investigations are those occurrences that qualify as 'serious accidents': any train collision or derailment of trains resulting in the death of at least one person, serious injuries to five or more persons, or damage of at least € 2 million to rolling stock, the infrastructure or the environment, and any other accident with the same consequences that has an obvious impact on railway safety regulation or the management of safety.

In addition to these legal considerations, and given the limited capacity, the Dutch Safety Board has developed criteria to select the occurrences to be investigated. An important criterion is the question whether something could be learned from the accident, i.e. whether any systemic shortcomings are thought to have contributed to the accident. The objective is to investigate those accidents where the Board's added value is greatest.

Note that for all incidents, there may be official bodies other than the Board – such as inspectorates and judicial authorities –carrying out their own investigations. In addition, and in accordance with de Board's philosophy, the parties directly involved will normally also carry out their own investigation.

3.2 Investigation and reporting

Once the decision is taken to investigate an accident, the investigation formally starts. The investigation process itself can be broken down into a number of phases: after an incident, the first stage is always to set in motion an exploratory investigation – which will take no longer than one or two months – in order to establish whether there is a systematic safety shortcoming worthy of a full investigation by the Board. Note too that the occurrence of a series of incidents may be reason to launch an investigation. In the next phase, a plan of action is drawn up. The investigation itself will result in a (draft) final report that after verification by the parties involved will be published. All reports of the Dutch Safety Board are available on its website: https://onderzoeksraad.nl/en/.



A special guidance committee is set up to aid each regular investigation. A guidance committee consists of external experts and is presided by a Board Member. It advises about the set-up of an investigation, the conclusions and recommendations. It is the Board that ultimately decides on the content of the reports.

Once the report has been published and sent to those to whom the recommendations are addressed, these stakeholders are given a maximum of six months to respond. The response has to be sent to the minister responsible for the relevant operational sector. A copy of this response must be sent simultaneously to the chairman of the Dutch Safety Board and to the Minister of Security and Justice. In this way, the appropriate ministry can fulfil its legal duty to monitor the follow-up actions taken in the light of the Board's recommendations.

Pursuant to the European Railway Safety Directive², the Dutch Safety Board's safety recommendations are to be addressed to the national safety authority (The Human Environment and Transport Inspectorate, ILT) or to other bodies or authorities in the Netherlands or to other Member States. Parties to whom a safety recommendation has been addressed, shall report back on the measures taken. The ILT monitors the follow-up of the safety recommendations issued in the rail safety investigation reports of the Dutch Safety Board addressed to non-government parties.

All responses to the Board's safety recommendations are published on our website, accompanied by the Board's assessment of the degree to which these recommendations have actually been followed up.³

² Directive (Directive (EU) 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway safety, as implemented into Dutch law in the 'Besluit Onderzoeksraad voor Veiligheid'.

³ https://onderzoeksraad.nl/en/ Note that the reactions and the Board's assessment of the follow up are often only published in Dutch.

4.1 Investigations started in 2024

In 2024, one railway safety investigation was started.

Date of	Title of the	Legal basis	Number of victims		Damage
occurrence	investigation		Fatalities	Serious injuries	€ x 1 mln
28 August 2024	Level crossing accident Hooge Zwaluwe	Art. 20(1)	1	0	< 1

4.2 Investigations completed in 2024

In 2024, one railway safety investigation was published.

Railway accident in Voorschoten. May 2024. Date of occurrence: 4 April 2023.
 For the full report and animation, see:

https://onderzoeksraad.nl/en/onderzoek/collisions-and-derailment-voorschoten/

5.1 Recommendations published in 2024

In 2024, five recommendations were made. All five were made in the publication 'Railway accident in Voorschoten':

To the State Secretary for Infrastructure and Water Management

1. Ensure that in the commissioning of ProRail as infrastructure manager, values other than availability of the network and track integrity, such as safe working and the safe passing of trains at worksites, are embedded. In addition, remove the barriers for ProRail to develop and implement innovations in the industry with regard to safe working on the railways, on the one hand, and on the other, to create a facility for recording, analysing and sharing information on accidents and near misses (see recommendation 2).

To the infrastructure manager: ProRail

- 2. Set up a facility where information on rail accidents and near misses is recorded and put to good use. Require all rail stakeholders, including railway companies, to submit their incidents. Target in this facility the broad safety domain, i.e. including occupational safety and railway safety. Ensure that all relevant parties jointly learn from accidents and near misses and share lessons with each other.
- 3. Use the facility to be established (see recommendation 2) to improve safety based on risk analysis. Maintain control over the safety of works and rail traffic in all phases of maintenance work, from strategy and innovation to implementation. In particular use industry professionalism in addition to imposing rules to make situational trade-offs.
- 4. Promote the safety of railway workers. If you cannot take all tracks into possession, at least ensure the following:
 - a. a robust (physical) worksite shielding.
 - b. a work location that is safely accessible. Stop using island possessions and temporary crossing periods to work locations and road-rail access points.
 - a facility so that track workers can see on site whether or not tracks are in possession. To this end, introduce tools complementary to verbal communication.
 - d. record verbal safety communication to promote learning from accidents and near misses.

5. Reduce the negative health and safety consequences of night work and excessive working without increasing safety risks. Ensure railAlert and maintenance contractors take measures to reduce the risks of night work. In doing so, ensure that when working on the track, the working hours of self-employed workers as a minimum comply with the Working Hours Act.

5.2 Implementation of recommendations

Over the past five years (2020-2024) the Dutch Safety Board published one rail accident report.

			Implementation status					
Year of	Number of Number of reports recommendations		Implemented		In progress		Not implemented	
publication	published	made	No.	%	No.	%	No.	%
2020	0	0						
2021	0	0						
2022	0	0						
2023	0	0						
2024	1	5						
Total	1	5	0	0%	5	100%	0	0%

The national safety authority of the Netherlands monitors the follow-up of recommendation issued by the Dutch Safety Board and reports annually. The monitoring included one recommendation made in 2016, which is now considered implemented by the NSA. It also includes the replies from the addressees to the recommendations of the Voorschoten publication. The 2024 report from the NSA can be found here:

https://www.ilent.nl/onderwerpen/veiligheid-op-het-spoor/documenten/transport/rail/veiligheid-op-het-spoor/rapporten/monitoring-uitvoering-aanbevelingen-onderzoeksraad-voor-de-veiligheid-2024.4

⁴ And here: https://zoek.officielebekendmakingen.nl/blg-1194431.pdf.

Reports 2005-2024

The table below includes all rail safety investigation reports published by the Dutch Safety Board since its establishment.

Year of publication	Title
2024	Railway accident in Voorschoten
2018	Level crossing safety – a hazardous intersection of interests
2016	Collision between a passenger train and a man lift, Dalfsen
2016	Risk management for the transport of dangerous goods by rail (Tilburg train collision)
2014	Train derailment Hilversum
2013	Train collision Rotterdam Maasvlakte*
2012	Collision between intercity and sprinter, Amsterdam
2011	Metro fire and collision, Amsterdam*
2011	Collision between two goods trains and a passenger train, Barendrecht
2011	Collision of rail-grindingtrain, Stavoren
2010	Derailment of goods train near Amsterdam Muiderpoort station
2008	Derailment at Randstadrail
2007	Derailments Amsterdam Central Station
2005	Passing a red sign at Amsterdam Central Station
2005	Derailment of freight train, Apeldoorn

^{*} in Dutch only.