Statens havarikommisjon

# ANNUAL REPORT 2025

## Norwegian Safety Investigation Authority

## Rail Department

Lillestrøm 30 September 2026

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# 1. Norwegian Safety Investigation Authority

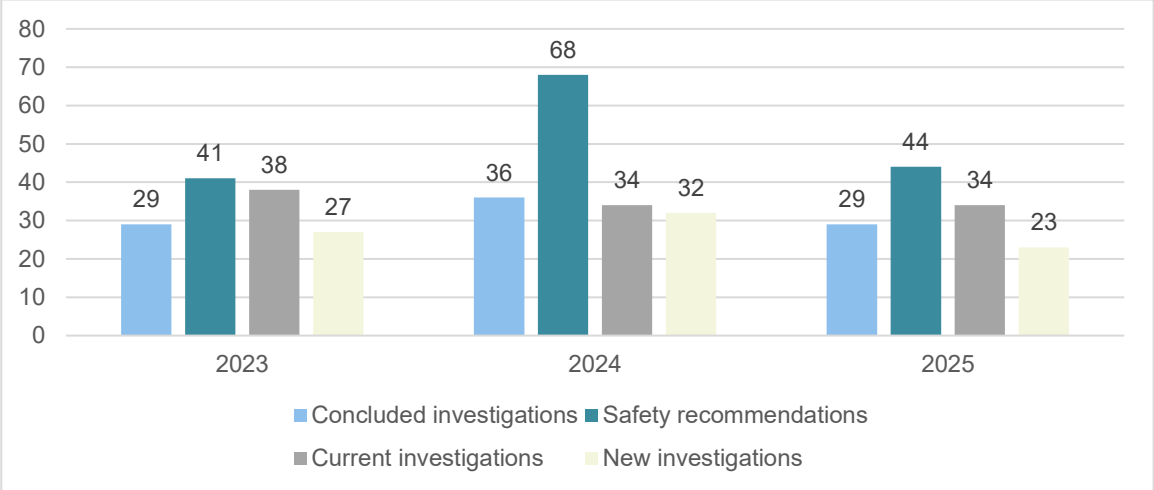
## 1.1 NSIA activities and key figures

The Norwegian Safety Investigation Authority (NSIA) is an administrative agency under the Ministry of Transport. In professional matters, the NSIA is an independent body.

The NSIA investigates accidents and serious incidents in the transport sector, involving aviation, rail traffic, road traffic and marine transport. Furthermore, the NSIA investigates accidents and serious incidents in the defence sector and accidents involving amusement devices and ropeways, as well as accidents and incidents relating to space activities. The purpose of the investigations is to elucidate matters deemed to be important to the prevention of accidents in the transport and defence sectors, accidents involving amusement devices and ropeways and accidents relating to space activities. The NSIA does not apportion blame or liability under criminal or civil law. The NSIA decides the scale of the investigations to be conducted, which includes assessing the investigation's expected safety benefits in relation to necessary resources.

The disciplines road, aviation and rail transport, and amusement devices and ropeways fall under the Ministry of Transport's area of responsibility. The disciplines marine transport and space activities fall under the Ministry of Trade, Industry and Fisheries' area of responsibility, while the defence discipline falls under the Ministry of Defence's area of responsibility.

The diagram below shows the NSIA's total production of concluded investigations, the number of safety recommendations, the number of ongoing investigations at the turn of the year and investigations initiated per year for the past three years. In the next chapter, the details of the rail department are provided.




In 2025, 29 investigations were concluded, resulting in 28 reports and one safety note. In addition to the many safety findings identified in the reports, the NSIA issued a total of 44 safety recommendations. This is seven fewer concluded investigations than in 2024, but at the same level as in 2023. At the end of 2025, the NSIA had 34 ongoing investigations.

The number of concluded investigations and safety recommendations will vary from year to year, depending on the scope and complexity of the investigations.

## 1.2 Organisation as of 31 December 2025

The NSIA consists of four technical departments, one administrative department and an advisory staff unit. The head of the Aviation Department coordinates the follow-up of the Defence Accident Investigation Act and the pertaining Regulations.

As of 31 December 2025, the NSIA had 54 permanent employees, one of whom was on unpaid leave, one temporary employee in the advisory staff unit, and an IT operations apprentice employed in the administration department.

| Unit | Management/staffing |
|---|---|
| Norwegian Safety Investigation Authority (NSIA) | Director General |
| Advisory staff | 6 Senior Advisers |
| Aviation | Director of Department; 10 Inspectors of Accidents |
| Rail | Director of Department; 5 Inspectors of Accidents |
| Marine | Director of Department; 7 Inspectors of Accidents |
| Road and Land Defence | Director of Department; 11 Inspectors of Accidents |
| Administration | Director of Department; 11 staff members |

## 1.3 Selected key figures from the annual accounts

| Key figures from the annual accounts | 2025 | 2024 | 2023 |
|---|---|---|---|
| Number of employees* | 56 | 54 | 55 |
| Number of contracted FTEs* | 55 | 53 | 53 |
| Number of FTEs worked** | 49.5 | 51.5 | 50.3 |
| Total allocation items 01–99 | 105,691,000 | 103,748,000 | 97,158,000 |
| Utilisation ratio items 01–29 | 95.42% | 97.8% | 102.9% |
| Operating expenses | 100,846,134 | 101,504,198 | 98,448,567 |
| Payroll expenses per FTE | 1,436,734 | 1,355,808 | 1,350,876 |
| Payroll expenses as a percentage of operating expenses | 69.2% | 68.8% | 69% |
| Consultancy expenses as a percentage of operating expenses | 2.0% | 3.0% | 4.0% |

* Source: Statistics Norway table “12623 Government employees, by unit”. Data collected through the A-ordningen service. The number of employees is the average for the year.

** One full-time equivalent is defined as one person working full time for one year. Other periodic work measurements (monthly, quarterly, four-monthly) are defined as full-time work throughout the period in question. The Ministry of Local Government and Modernisation has defined the concept of “full-time equivalents worked”, cf. personnel notification PM-2019-13: Definition of FTEs worked.

Accounting figures in the annual report refer to figures from the cash accounts. The NSIA’s operating expenses in 2025 amounted to NOK 100,846,134, giving a utilisation ratio of 95.42%. Expenditure was NOK 0.6 million lower than in 2024. The underspend is mainly due to the postponement from 2025 to 2026 of costs relating to the purchase of fixtures and fittings for the new building, the postponement of costs relating to the development of a system for following up safety recommendations, and substantially higher reimbursements of sickness and parental benefits in 2025 than in previous years.

Payroll expenses per FTE increased in 2025 because the wage settlements for both 2024 and 2025 were disbursed in the same year. Some vacancies in 2025 meant that payroll expenses did not increase as much as expected. Payroll expenses as a percentage of operating expenses remained stable compared with previous years.

## 1.4 Main objective and key priorities

The overarching transport policy objective is “An efficient, environmentally friendly and safe transport system throughout the country by 2050”.

The NSIA’s main objective for 2025 was as follows: “The Norwegian Safety Investigation Authority shall contribute to improving safety through independent investigations of accidents and serious incidents in the aviation, rail, road and defence sectors, and of marine accidents and work accidents on board ships. Furthermore, the NSIA is the investigative authority for accidents and incidents involving space activities, as well as for accidents and serious incidents involving amusement parks and ropeways.”

A subsidiary objective was that: “Investigation reports, including any safety recommendations, shall be submitted within 12 months of the accident or serious incident occurring. If the time limit cannot be met, the NSIA shall submit an interim report at least every 12 months.”

The NSIA contributes to the overarching transport policy objective and the UN Sustainable Development Goals, as formulated in the allocation letter, through thorough and independent investigations of accidents and incidents in all its disciplines. In 2025, the NSIA also followed up its own sustainability measures defined in the internal guidance document for sustainability work in the NSIA.

Through the NSIA’s safety investigations, public reports are prepared in which sequences of events are clarified, causes analysed and safety recommendations addressed to authorities, manufacturers, operators and other affected parties. Accident prevention is demanding, and in many areas the effect of the work will only become visible after long-term national and international efforts. The NSIA has good cooperation with investigation authorities in other countries and has, over time, built strong relationships and trust with major national and international stakeholders that can influence developments in the right direction.

The NSIA’s materiality assessment from 2024 shows that there are areas where the organisation has opportunities to make changes to minimise climate emissions, nature footprint and energy use, and to safeguard governance, the working environment and equality work. The internal guidance document provides direction for the NSIA’s continued work.

## 1.5 About this report

This English version has been prepared as an extract of the 2025 annual report, using the terminology and style of the NSIA Rail Annual Report 2024 as a model.

# 2. Rail department's activities and goal achievement

## 2.1 Notification of accidents and incidents

The Rail Department was notified of 274 railway accidents and serious railway incidents in 2025, compared with 384 in 2024. This is down compared with the previous year and may, to some extent, be due to a change in notification practices for near misses involving people and vehicles, and to there having been fewer incidents that were not subject to the duty of notification.

After the department's area of responsibility was expanded to include ropeways and amusement devices, there has been an increase in notifications outside normal working hours. This is a natural consequence of activity in the new areas primarily taking place in the evenings and at weekends. The department is often notified of the same incident by multiple sources, which means that the number of calls received by the duty officer is higher than the number of incidents recorded. At the end of the year, the notifications broke down as shown in the table below:

| | **Number of notifications** |
|---|---|
| Railway accident (without fatalities) | 11 |
| Railway accident (fatal accident) | 23 |
| Serious railway incident | 187 |
| Railway incident or other (not subject to duty of notification) | 53 |
| Ropeway and amusement devices | 31 |
| Total | 305 |

The number of rail notifications per month varied from 31 in September to 14 in October.

Notifications are received via the 24/7 duty phone. Dealing with such notifications requires considerable effort by the department, as notifications received at an early stage are often based on limited knowledge about the severity of the accident or incident. A decision on whether to initiate an investigation must be made quickly, so that rolling stock/vehicles and infrastructure can be released and traffic resumed.

In 2025, as before, the most common accident and incident types notified to the NSIA were signals passed at danger, persons on the track and level-crossing incidents.

All serious railway incidents and railway accidents must be reported within 72 hours. The NSIA reviews and assesses all the reports it receives. The number of reports received by the NSIA over the past few years is shown in the table below:

| **Written notifications (reports)** | **2025** | **2024** | **2023** | **2022** | **2021** | **2020** |
|---|---|---|---|---|---|---|
| Serious railway incidents and railway accidents | 1,070 | 1,172 | 1,196 | 1,056 | 929 | 930 |

The figures have not been adjusted for double reporting, nor for any subsequent reclassification. Every report is reviewed and assessed in terms of what lessons can be expected to be drawn from an investigation with a view to improving safety.

The figures presented herein represent those we are aware of and do not represent Norway's official accident and incident statistics, as the preparation of such statistics does not fall under the NSIA's remit.

## 2.2 Investigations

A total of two new investigations were initiated in 2025.

The department published three investigation reports and one safety note in 2025. No preliminary reports or notifications of safety-critical findings were issued.

A number of preliminary investigations are also carried out to obtain further information in order to decide whether or not to investigate a reported incident. Relevant information from all preliminary reports is filed to allow for subsequent use of data in similar cases. The amount of time spent on investigations of this type varies from a few hours to several working days. One of the preliminary investigations led to a safety note in which relevant safety learning points were highlighted, without initiating a full safety investigation.

The Rail Department visited accident sites on two occasions in the course of 2025, compared with nine in 2024.

### 2.2.1 CURRENT INVESTIGATIONS

At the beginning of 2026, the department had three ongoing investigations. An overview of the Rail Department's ongoing investigations can be found on the NSIA's website. The information is updated regularly.

| Date | Title | Type of transportation | Category of occurrence |
|---|---|---|---|
| 25 Aug. 2025 | Investigation of a collision between a tractor and a passenger train at an unprotected level crossing on the Gjøvik Line | Empty passenger train | Level-crossing accident/collision |
| 22 Jan. 2025 | Investigation of a collision between a lorry and a passenger train at an unprotected level crossing on the Kongsvinger Line | Passenger train | Level-crossing accident |
| 24 Oct. 2024 | Investigation of a collision with a rockslide at Finneidfjord north of Bjerka station on the Nordland Line | Passenger train | Collision |

The NSIA receives a number of notifications every year of near-collisions with vehicles and persons at unprotected level crossings. Since 2022, the NSIA has investigated two accidents in this category, and in 2025 two such collisions occurred. These two investigations are described below.

#### 2.2.1.1 Investigation of a collision between a lorry and a passenger train at an unprotected level crossing on the Kongsvinger Line

On Wednesday 22 January 2025, train 1020 operated by Vygruppen AS collided with a lorry at Pran level crossing on the Kongsvinger Line. The lorry driver was killed in the accident, and one passenger on the train sustained minor injuries.

Pran level crossing is unprotected and situated in an agricultural area. Since 2022, the NSIA has investigated two similar accidents in the same area. There are a number of unprotected level crossings on the section around Disenå station.


*Line of sight from the level crossing in the direction from which the train came. Photo: NSIA*

#### 2.2.1.2 Investigation of a collision between a tractor and a passenger train at an unprotected level crossing on the Gjøvik Line

On Monday 25 August 2025, train 17401 operated by Vygruppen AS collided with a tractor at Gamme level crossing on the Gjøvik Line. The tractor driver was killed in the accident.

Gamme level crossing near Eina is unprotected and situated in an agricultural area.

*Line of sight from the level crossing in the direction from which the train came. Photo: NSIA*

## 2.3 Published reports

Three investigations were completed in 2025. They resulted in the following reports:

- 2025/03 Report on railway accident at Arna station on 22 March 2024

- 2025/02 Report on derailment with tram at the intersection between Nygata and Storgata in Oslo on 29 October 2024
- 2025/01 Report on runaway trailer on the Ekeberg Line in Oslo on 12 February 2024

The reports have summaries, conclusions and safety recommendations in English.

The safety note that was written after a preliminary investigation was shorter and focused on increasing learning from previous investigations on similar issues relating to level crossings.

- 2025/SN1 Safety note about a collision between passenger car and passenger train at Grundset level crossing on 20 July 2024

A more detailed discussion of two of these reports is given below.

### 2.3.1 2025/03 REPORT ON RAILWAY ACCIDENT AT ARNA STATION ON 22 MARCH 2024

The accident occurred on Friday 22 March 2024 at 19:12 at Arna station. Freight train 5924 operated by OnRail AS passed inner main signal 11016 at danger. The train, which was travelling at approximately 75 km/h when it passed the signal, continued through a diverting set of points, collided with a buffer stop, derailed and came to rest in the tunnel opening.

The driver sustained minor injuries. The accident caused extensive material damage, estimated at NOK 52 million to the rolling stock (the locomotive was a total loss and three wagons had to be condemned), and NOK 27.8 million for the rebuilding of damaged infrastructure.

*Derailed wagons in the tunnel opening of the Arnanipa tunnel. Photo: NSIA*

The direct cause of the accident was that freight train 5924 departed Bergen terminal with greatly reduced braking power, making it impossible for the train to stop at Arna station where it was to cross with a passenger train. Several factors contributed to the accident occurring.

The brake pipe cocks between the locomotive and the first wagon were closed in connection with troubleshooting on the locomotive (type BR187). This was done to prevent the brake pipe from emptying when the driver decided to shut down and restart the locomotive in order to rectify a fault on the TDD monitor in the driver's cab. The fault rectification was neither planned nor carried out according to a fixed procedure, and the train dispatcher contacted the driver to ask whether departure could be brought forward. This happened while the driver was working on the fault

rectification. Neither the driver nor the terminal worker remembered to reopen the cocks before departure, and no continuity test was therefore performed. As a result, the driver was only able to apply the brakes on the locomotive itself, not on the wagons.

The driver performed a brake test in the Ulriken tunnel, which is a mandatory operational barrier. The brake test was performed on an ascending gradient, and the driver perceived the braking effect as normal, despite the train having greatly reduced braking power.

OnRail AS had not risk-assessed the BR187 locomotive type before the company started using it. The company also lacked written procedures for fault rectification involving the closing of brake pipe cocks. Frequent faults on the TDD monitor on BR187 locomotives, which made troubleshooting necessary, increased the likelihood of errors.

The NSIA found that a similar hazardous situation may also arise if it becomes necessary to perform an ETCS brake test. The BR187 locomotive type requires this brake test to be performed without wagons coupled to the locomotive, or with the brake pipe cock towards the wagons closed. This is a condition of use set out in the locomotive's "Red Book" and entails that a residual risk is transferred to the end user.

The track equipment and signalling system at Arna station functioned as intended. Train 5924 was diverted away from the main track by the diverting points, which limited its further travel into the tunnel. The railway infrastructure is not designed for trains to be operated with braking performance as low as that of train 5924.

The situation after the accident was confusing. Several misunderstandings arose between the traffic control centre in Bergen and the emergency services, particularly concerning the location and possible evacuation of passenger train 601 in the Arnanipa tunnel (with approximately 170 people on board), as well as concerning the type of dangerous goods carried on the freight train. It took a long time before the emergency services became aware that train 601 was in the tunnel (approximately one hour). The evacuation of passenger train 601 took a long time (more than five hours in total before the passengers were out). The reasons for this are compound. The long mobilisation time for rescue vehicles, the police requirement for reduced speed into the tunnel, challenges associated with releasing the brakes on the passenger train and logistical challenges involving the buses all contributed to prolonging the evacuation. Bane NOR generally prefers to recover trains rather than evacuate on foot along the track.

The NSIA issues three safety recommendations following the accident. Two safety recommendations concern the use of the BR187 locomotive type, both generally and in OnRail AS. One safety recommendation concerns exercises between Bane NOR SF and the emergency services.

The report also highlights three learning points relating to risk assessment of new rolling stock, the use of emergency calls and the operational barrier of brake testing.

### 2.3.2 2025/02 REPORT ON DERAILMENT WITH TRAM AT THE INTERSECTION BETWEEN NYGATA AND STORGATA IN OSLO ON 29 OCTOBER 2024

At around 11:04 on 29 October 2024, tram 414 derailed in the curve at the intersection between Nygata and Storgata in Oslo and ran into a shop. The tram was operating on line 19 and suddenly accelerated to approximately 37 km/h at points 17, far above the 15 km/h permitted speed through the points.


*Tram 414 derailed at the intersection between Nygata and Storgata. Photo: NSIA*

The accident was caused by overspeed through the points. The overspeed was caused by an acute medical event involving the tram driver, which resulted in loss of consciousness. At the same time as the driver lost consciousness, the power handle was placed in the full traction position and the driver vigilance device was released.

Immediately before losing consciousness, the driver experienced sudden and very severe abdominal pain and a strong urge to vomit, which was later found to be caused by Norovirus. Medical assessments concluded that the virus caused strong activation of the vagus nerve, leading to reduced heart rate, low blood pressure and fainting (vasovagal syncope). The condition arose acutely, with no possibility of preventing it.

The SL18 is equipped with a driver vigilance system intended to stop the vehicle if the driver loses consciousness. The system functioned as intended, but the sequence of events was very short (approximately eight seconds from full traction/release of the vigilance device to the collision). The system takes 10 seconds to activate the brakes, which was too long in this case. The SL18 is not fitted with collision avoidance systems (CAS) or automatic tram speed monitoring (ATSM). The NSIA's investigations have not identified any matters relating to tram maintenance or other technical or organisational factors that are considered relevant to the accident.

The tram driver and three passengers sustained minor injuries, while no one in the shop was injured. The tram sustained extensive damage (estimated repair costs of up to NOK 33 million), and the shop was badly damaged. The accident had far less serious consequences than it could have had, as at other times or locations it could have affected many more people.

The NSIA does not issue any safety recommendations following the accident, but highlights loss of consciousness due to Norovirus as a general learning point. The report emphasises the importance of good hand and kitchen hygiene as preventive measures against Norovirus.

## 2.4 Safety recommendations

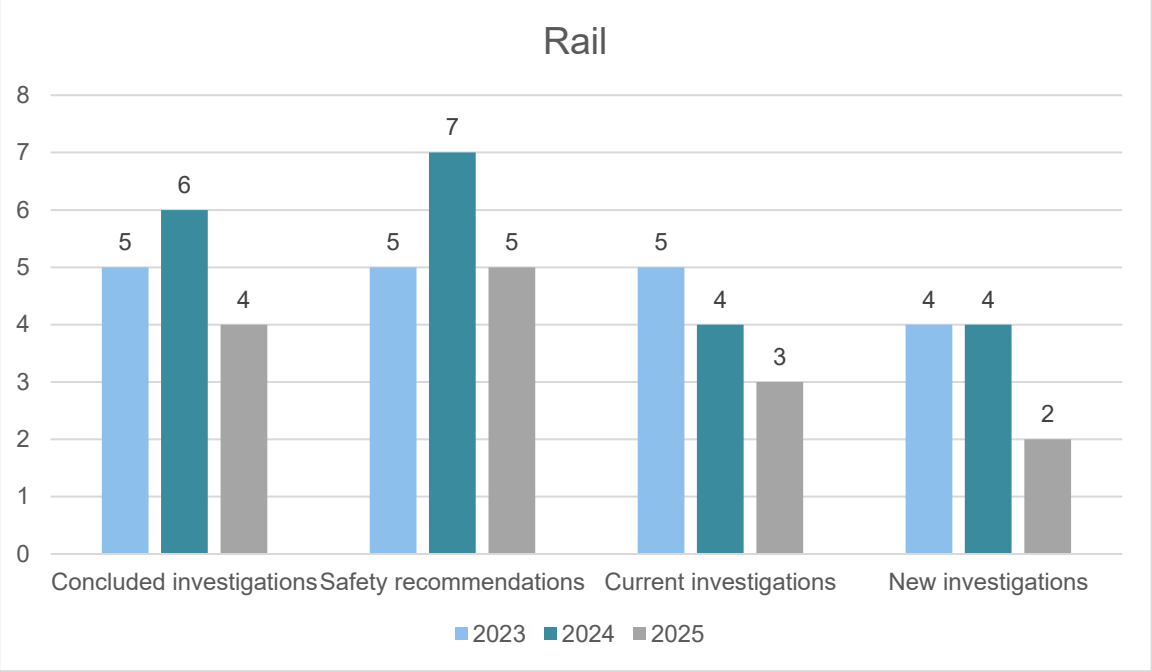
The Rail Department issued five safety recommendations in 2025.

Reference is made to the Annex, which contains an overview of all safety recommendations in the rail area.

Twice a year, the NSIA shall receive a letter from the Department for Rail, Planning and Environment at the Ministry of Transport about the status of the safety recommendations that are being followed up by the Norwegian Railway Authority. If safety recommendations have been submitted that are to be followed up by the Road Supervisory Authority, the Ministry of Transport's Department of Public Roads, Urban Mobility and Traffic Safety shall provide updates on their status. The status of safety recommendations issued directly to, or via, other ministries or government agencies is followed up by the Ministry of Transport itself. The latest status on case processing was received on 9 September 2025.

## 2.5 Developments over the past three years

The diagram shows the trends in concluded investigations, safety recommendations, ongoing investigations at the turn of the year and initiated investigations per year for the past three years.




As the figure shows, the number of safety recommendations issued varies from one year to the next. The reasons for this are complex, and the number is affected by, among other things, the number of completed reports, their complexity and the number of parties involved in a case. If the NSIA has recently issued a safety recommendation on the same topic, it will be natural to wait until the measures have had time to take effect before considering repeating the message in another safety recommendation. The NSIA also expects the content of its reports to be used in the work to improve safety, not just the individual safety recommendations.

## 2.6 Other activities

In 2025, the Rail Department attended three network meetings for European rail accident investigation bodies held by the European Union Agency for Railways (ERA). One was held in The Hague, one as a digital meeting, while the last meeting took place near ERA's headquarters in Valenciennes.

According to the Regulations of 31 March 2006 No 378 on Public Investigations of Railway Accidents and Serious Railway Incidents etc. (the Railway Investigation Regulations), the NSIA shall, by 30 September each year, prepare and publish a report describing the investigations

carried out in the course of the preceding year, the safety recommendations issued and their status. The report for 2024 was prepared and published within the deadline. It is available on the NSIA's website under Rail.

Norway participated in this year's Nordic meeting, which was held in Copenhagen in May 2025. Representatives of the accident investigation bodies of Denmark, Finland, Sweden, Norway, the United Kingdom, Ireland, Greece and Estonia, as well as a representative from ERA, attended the event. Over time, the group has also included other countries that do not naturally fall within the corresponding German-speaking meeting, but that nevertheless wish to participate in a forum for sharing experience across national borders.

Two annual contact meetings are held with the Norwegian Railway Authority, as well as separate follow-up of the processing of open safety recommendations. In connection with investigations, meetings are also held with relevant parties at different levels of the organisation.

## 2.7 Goal achievement

The Rail Department completed three investigations in 2025 and issued a safety note from a preliminary investigation where it was appropriate to highlight safety learning without initiating a full safety investigation.

Five safety recommendations were issued in 2025. The NSIA assumes that the entire report will be used for safety learning purposes, not just the safety recommendations.

The level of safety in the railway sector is generally high. This means, among other things, that simple and concrete safety measures have largely already been addressed. Over time, our investigations have therefore shifted towards organisational and underlying factors, often at a system level and linked to framework conditions. This type of investigation requires more work, as information must be obtained from more parties, including those that have not had a direct connection to the incident itself, and this is time-consuming. This contributed to two of the investigations being completed within 16–19 months, while the last one, which had few organisational causes, was completed within 10 months of the date of the incident.

At the turn of the year 2025/2026, one of the ongoing investigations had been in progress for more than 12 months.

Through its investigations, the NSIA makes important contributions to safety in the sector. The undertakings concerned make direct use of the safety recommendations and reports in their safety work. In addition, the Norwegian Railway Authority uses the reports as a basis for its audit programme.

Learning from our investigation reports is normally communicated through the reports themselves. In today's information society, we see a need to think differently about communication. We are therefore active in the industry with presentations of cases, and our aim is to respond positively to all requests to participate with lectures at internal gatherings, industry meetings, different study programmes and similar arenas where we see that we can contribute to safety learning.

In 2025, separate professional meetings and contact meetings were held with CargoNet, the Ministry of Transport's Rail Department, Vy and Bane NOR. These types of meetings are very useful and contribute to good dialogue and understanding across the sector.

Since 2013, the department has given lectures as part of the training of new train drivers at the Norwegian Railway Academy. This helps to ensure that we, as an organisation, are known among all newly qualified train drivers. In 2025, necessary investigation work was prioritised, leaving less time than desired for contributions to the study programme than in 2024.

The NSIA receives feedback indicating that the reports and safety recommendations maintain good quality and are included in the curriculum used both for training new train drivers and for in-house training by railway undertakings. The NSIA translates the summaries, conclusions and safety recommendations from all its published reports into English, which helps to make the results of our investigations available to an international audience.

# Annex

# Annex A – Safety Recommendations 2025

This is a list over safety recommendations published this year. By the end of the year, all recommendations had status “open”.

## Safety Recommendation Rail no 2025/01T

On 12 February 2024, a rail-mounted trailer rolled uncontrolled within a construction site from Ekebergparken stop down towards Oslo city centre. The trailer was standing on a steep gradient while being loaded with gravel. An undetected fault in the braking system meant that, at one point, the weight of the trailer exceeded the available braking force, causing it to start rolling. In order to stop the runaway trailer, an excavator was driven onto the track. This prevented the trailer from entering city streets with mixed traffic.

The work was being carried out on behalf of Sporveien Trikken AS. Although it was clear at an early stage that work was not being performed in accordance with Sporveien Trikken AS’s expectations, no measures were implemented to compensate for this.

The Norwegian Safety Investigation Authority recommends that the Norwegian Railway Authority ensure that Sporveien Trikken AS has supplier management systems that function in accordance with the provisions of the Safety Management Regulations.

## Safety Recommendation Rail no 2025/02T

On 12 February 2024, a rail-mounted trailer rolled uncontrolled within a construction site from Ekebergparken stop down towards Oslo city centre. The trailer was standing on a steep gradient while being loaded with gravel. An undetected fault in the braking system meant that, at one point, the weight of the trailer exceeded the available braking force, causing it to start rolling. In order to stop the runaway trailer, an excavator was driven onto the track. This prevented the trailer from entering city streets with mixed traffic.

The work was being carried out on behalf of Sporveien Trikken AS. Although it was clear at an early stage that work was not being performed in accordance with Sporveien Trikken AS’s expectations, no measures were implemented to compensate for this.

The Norwegian Safety Investigation Authority recommends that the Norwegian Railway Authority ensure that Sporveien Trikken AS has systems that ensure that suppliers have the necessary resources and competence to safeguard safety during work on and around tracks.

## Safety Recommendation Rail no 2025/03T

On Friday 22 March 2024 at 19:12, freight train 5924 operated by OnRail AS passed the inner main signal at Arna station at danger. Via a diverting set of points, the train was routed into a dead-end track, where it collided with the side terrain and came to rest in the opening of the Arnanipa tunnel.

Due to earlier troubleshooting and rectification of a non-safety-critical fault, the driver had decided to close the brake pipe cocks between the locomotive and the first wagon, but forgot to reopen them before departure from Bergen. The process for handling this type of fault had not been risk-assessed or systematically addressed by OnRail AS.

The Norwegian Safety Investigation Authority recommends that the Norwegian Railway Authority request OnRail AS to risk-assess the use of Traxx F160 AC3 (BR187), particularly with regard to situations that may require the closing of brake pipe cocks.

## Safety Recommendation Rail no 2025/04T

On Friday 22 March 2024 at 19:12, freight train 5924 operated by OnRail AS passed the inner main signal at Arna station at danger. Via a diverting set of points, the train was routed into a dead-end track, where it collided with the side terrain and came to rest in the opening of the Arnanipa tunnel.

When the accident occurred, passenger train 601 stopped inside the Arnanipa tunnel, about 1 km from the accident site. Several misunderstandings arose in the dialogue between Bane NOR and the emergency services, which in turn created uncertainty around decisions.

The Norwegian Safety Investigation Authority recommends that the Norwegian Railway Authority request Bane NOR SF to conduct exercises on coordination with the emergency services, so that the emergency services receive the information they need to make the right decisions.

## Safety Recommendation Rail no 2025/05T

On Friday 22 March 2024 at 19:12, freight train 5924 operated by OnRail AS passed the inner main signal at Arna station at danger. Via a diverting set of points, the train was routed into a dead-end track, where it collided with the side terrain and came to rest in the opening of the Arnanipa tunnel.

The locomotive type in question, Traxx F160 AC3 (BR187), comes with conditions of use that must be observed by the end user. Both fault rectification situations and the need for an ETCS brake test may require brake pipe cocks to be closed, thereby creating a risk that they are forgotten in the closed position.

The Norwegian Safety Investigation Authority recommends that the Norwegian Railway Authority ensure that users of Traxx F160 AC3 (BR187) in Norway have addressed the manufacturer’s conditions of use relating to the locomotive’s braking systems.