



3 Making the railway system
work better for society.

NSA Annual Report 2023

Norway

Contents

Definitions and Abbreviations	3
1. Introduction.....	4
1.1. Purpose, scope, and addressees of the report.....	4
1.2. Main conclusions on the reporting year.....	4
2. English summary	5
3. NSA safety strategy, programs, initiatives and organizational context.....	6
3.1. Strategy and planning activities	6
3.2. Safety Recommendations.....	7
3.3. Safety measures implemented unrelated to the recommendations	7
3.4. Safety Organisational context	7
4. Safety performance.....	7
5. EU legislation and regulation.....	11
6. Safety Certifications, Safety Authorisations and other certificates issued by the NSA	12
6.1 Safety Single Certificates and Safety Authorisations.....	12
6.2. Vehicle Authorisations	13
6.3. Entities in Charge of Maintenance (ECM).....	13
6.4. Train drivers.....	13
6.5. Other type of authorisation/certifications	13
6.6. Contacts with other National Safety Authorities.....	13
6.7. Exchange of information between NSA and railway operators	13
7. Supervision	14
7.1. Strategy, plan, and decision-making	14
7.2. Supervision results	14
7.3. Coordination and cooperation	15
8. Application of relevant CSMs by RUs and IMs.....	15
8.1. Application of the CSM on Safety Management System.....	15
8.2. Application of Regulation 402/2013 on the CSM for risk evaluation and assessment.....	15
8.3. Application of Regulation 1078/2012 on the CSM for monitoring.....	15
8.4. Participation and Implementation of EU projects.	15
9. Safety culture	15
9.1 Safety culture evaluation and monitoring.....	15
9.2. Safety culture initiatives/projects	16
9.3. Safety culture communication	16
Annex A: Progress with Interoperability.....	17

Definitions and Abbreviations

AsBo	Assessment Body
CSI	Common Safety Indicator
CSM	Common Safety Method
CST	Common Safety Target
EC	European Commission
ECM	Entities in charge of maintenance
EMM	Enforcement Management Model
ERAIL	European Railway Accident Information Links
ERTMS	European Railway Traffic Management System
EU	European Union
FTE	Full Time Equivalent
IM	Infrastructure Manager
IOD	Interoperability Directive
IOP	Interoperability
NIB	National Investigation Body
NoBo	Notified Body
NSA	National Safety Authority
OTM	On Track Machines
PRM TSI	Technical specifications for interoperability relating to accessibility of the Union's rail system for persons with disabilities and persons with reduced mobility
RSD	Railway Safety Directive
RU	Railway Undertaking
SMS	Safety Management System
TDD	Train Drivers Directive
TSI	Technical Specification for Interoperability
VA	Vehicle Authorisation

1. Introduction

1.1. Purpose, scope, and addressees of the report

The purpose of this report is to provide information about safety related results from 2023. It covers the main national railway network. Tramways and underground are excluded from the scope. The intended addressees of this report besides the ERA are the National Investigation Bodies (NIB) and the Ministry of Transport and Communications.

1.2. Main conclusions on the reporting year

The risk-based supervision process for 2023 concluded with the following prioritized goals for the supervision programme:

- Enhance reporting of incidents and accidents internal for the RU's and to the NSA and the use of this information in the safety management processes.
- Ensure that the IM fulfil their responsibility for coordination of the established cooperation fora for security and emergency preparedness.
- Ensure that the emergency preparedness systems for the RU's operating passenger services are sufficient.

In regard to international cooperation we have close cooperation with our neighbouring countries Sweden and Denmark in order to exchange safety related experiences. We have a cooperation agreement with Sweden and Denmark related to safety certification and supervision according to the requirements in The Fourth Railway Package.

NSA Norway have prioritised participating in the work with CSM ALSP, as Norway already have a well-functioning incident and accident reporting system. This system gives the NSA important input to our risk-based supervision activities. It is of strategic importance to us to be able to have access to this information on a similar level also in the future. We also participate in a Working Group where NSAs exchange experience on risk-based supervision.

The number of significant accidents in 2023 is 33. The average of significant accidents from 2019-2023 is 25. 2023 is above the average of the last 5 years of significant accidents.

In 2023, the total number of reporting of incidents was 20 503. In 2022 there was 20 490. The average from 2019-2023 is 19 924. The number of significant accidents in 2023 is 33. The average from 2019-2023 is 25. 24 of the accidents in 2023 involved passenger trains, 7 freight trains and 2 other types of trains. 20 of the accidents are classified as impact with object, 17 of those were torn down overhead contact lines. From 2022 to 2023, this type of accident increased from 7 to 17. From 2022 to 2023, this type of accident increased from 7 to 17. NSA Norway don't know the reason for this increase. During supervision, NSA Norway have focused on emergency preparedness to be better prepared in evacuation in such situations. In 2023, 3 of the accidents are classified as derailments of trains, 4 were level-crossing accidents. 2 of the level-crossing accidents involved pedestrians.

During 2023, there were 4 fatalities related to level-crossings accidents. All fatalities in Norway last year were level-crossing accidents. NSA Norway have focused on level-crossing issues in our supervision and will continue to focus on this topic in 2024. We will also continue to monitor trends related to minor incidents. As a result of this monitoring in 2023, we have focused on maintenance of the Infrastructure Manager. We have monitored how the infrastructure manager have measures related to climate changes and will continue to monitor this topic in 2024. The number of fatalities in Norway is in general low. Most of the fatalities are connected to level-crossings and trespassing.

In 2023, error corrections and immaterial amendments were made in several regulations, including regulations transposing the Interoperability Directive and the Railway Safety Directive.

The regulation on the certification of train drivers was amended to remove the requirement that doctors and psychologists conducting occupational psychological examinations pursuant to the regulation must have completed supplementary training approved by the Norwegian Railway Authority.

The TSI revision 2023 (regulations 2023/1693, 2023/1694, 2023/1695 and 2023/1696) was not incorporated into the EEA Agreement in 2023, hence the regulations were not implemented into Norwegian law.

When issuing new, amended, and renewed safety certificates and safety authorisations, NSA Norway have noted these main issues:

- Risk analysis and risk assessment
- Competence management
- Supervision, safety management regarding outsourced activities (contractors)

For 2023, the supervision program was based on the following identified risks:

- Systems of evaluating and controlling risks
- Systems for following-up of reported incidents and accidents, with emphasis on vehicles and technical installations

Expected benefits for the supervision plan were:

- To ensure sufficient following-up of reported incidents and accidents
- Investigate all RUs/IM to clarify the extend of use of risk evaluation
- To ensure that risk evaluation is the tool for controlling risks, through use of accept criteria, methods for performing risk evaluations, and that top management is using risk evaluations as a tool in decision-making

NSA Norway carried out 11 audits in 2023. In general, railway safety is satisfactory, provided necessary corrective actions are taken to close identified non-conformities.

NSA Norway have a cooperation agreement on supervision and safety certification with the NSAs in Sweden and Denmark. The cooperation includes meetings and exchange of experience with respect to safety certification and supervision processes.

As for 2023 there were still need for the RUs and the IM to update their Safety Management Systems to ensure that they were in accordance with CSM SMS. This seems to have been handled in a good manner within the sector.

2. English summary

See chapter 1.2 Main conclusion on the reporting year.

3. NSA safety strategy, programs, initiatives and organizational context

3.1. Strategy and planning activities

NSA Norway's enterprise strategy (2021-2024) focus on the long-term goals given by the Ministry of Transport and Communications which shall ensure a high safety level for the Norwegian railways and also a well-functioning Railway Market.

In addition, the effect of our work related to three areas are focused on the following: relevant, efficient and innovative. This is supported by activities in our annual work programme.

To support the enterprise strategy, we have developed a Supervision Strategy and a Strategy for Public Security.

The Strategy for Public Security looks at safety and security from a Civil Protection point of view but is relevant for railway safety as it gives attention to Cyber-security issues and also the prevention of major accidents with low probability.

In line with our Supervision Strategy, we have established an annual supervision programme. The supervision programme includes defined areas of priority to ensure necessary improvement of important safety related topics in the industry.

The supervision programme and the prioritized areas are established using a risk-based model as support for priority. We use a risk matrix model as a basis for documentation of the NSA's assessment of the safety level of RUs and IM.

The risk-based model process is done in three steps:

The first step is to establish an overall picture of the risk for the railway industry. Based on our experience from all our railway related activities, combined with actual reported accidents and incidents, probabilities and consequences are established. These results are plotted in a consequence/probability diagram, and the dominating risks are chosen based on expert judgement. These risks will then be used as prioritized topics for all our activities including supervision.

For 2023, reporting of accidents and incidents and emergency preparedness and competence of RUs and IMs (specific focus on driving with ATP disconnected) were prioritized aspects.

The second step is a prioritizing exercise concluding which RU's and IM's that will have attention in the coming year. Based on type of operation and traffic volume, the entities are plotted in a risk matrix. The initial result is adjusted up or down based on experience from our activities, complexity of the organisation and safety statistics.

In step three the prioritized risks from the overall risk picture are combined with the prioritized RUs and IMs to establish our annual supervision programme. The supervision programme and the prioritized topics are published on our website.

The Supervision Programme is dynamic, so if risks appear during the year that require attention, reprioritizing of activities is considered. As an example for 2023 supervision of coordination of emergency preparedness was prioritized, after an incident where passengers had to wait more than four hours before they were evacuated from a train with one or more failure resulting in stop in a tunnel outside Oslo.

The risk-based supervision process for 2023 concluded with the following prioritized goals of the supervision programme:

- Enhance reporting of incidents and accidents internal for the RU's and to the NSA and the use of this information in the safety management processes. with emphasis on vehicles and technical installations
- Ensure systematic evaluation and controlling of risks
- Ensure that the IM fulfil their responsibility for coordination of the established cooperation fora for security and emergency preparedness.
- Ensure that the emergency preparedness systems for the RU's operating passenger services are sufficient.

In regards to international cooperation we have close cooperation with our neighbouring countries Sweden and Denmark in order to exchange safety-related experiences. We have a cooperation agreement with Sweden and Denmark related to safety certification and supervision according to the requirements in The Fourth Railway Package.

NSA Norway have prioritised participating in the work with CSM ALSP, as Norway already have a well-functioning incident and accident reporting system. This system gives the NSA important input to our risk-based supervision activities. It is of strategic importance to us to be able to have access to this information on a similar level also in the future. We also participate in a Working Group where NSAs exchange experience on risk-based supervision.

To help the industry to follow the established rules and regulations we have continued our systematic guidance of the requirements as a supplement to supervision activities. When establishing the risk-based supervision plan, we also use guidance as a tool to ensure that RUs and IMs are in line with the regulations.

We regularly arrange mini seminars on chosen subjects as part of the guidance.

3.2. Safety Recommendations

All recommendations issued by the National Investigation Bodies (NIB), are forwarded to the relevant RUs and IMs. The Ministry of Transport and Communications has delegated task to the NSA. The NSA may demand that the relevant RUs and IMs give an account of their plans for acting upon the recommendations from the NIB before the recommendation is closed. These plans of actions are also presented to the NIB by NSA Norway before recommending closure of the cases to the Ministry.

Twice a year, the status on all the open recommendations and recommendations closed since last reporting period are sent to the Ministry. The NIB is also informed. General meetings with the NIB to share information and gained experiences are also held at least twice a year.

3.3. Safety measures implemented unrelated to the recommendations

Not applicable.

3.4. Safety Organisational context

NSA Norway initiated an organizational survey in Autumn 2023 with a view to be more efficient, in addition to improve internal communication. The measures were implemented in the spring of 2024.

4. Safety performance

Table 1 Number of minor and major incidents in the period 2019-2023

Year	Number of minor incidents	Number of major incidents
2019	19 988	912
2020	19 260	846
2021	18 855	736
2022	20 490	819
2023	20 503	830
Average 2019-2023	19 924	829

Table 1 shows that number of minor incidents in 2023 is above the average of the period 2019-2023 while major incidents in 2023 have increased lightly from 2022 to 2023. The categories trespasser, level crossing incidents (near-collisions between trains and road vehicles) and pedestrians at level crossings have increased slightly in the period 2021-2023 compared to the period 2019-2020. NSA Norway don't know the reason for this increase. NSA Norway are investigating if this change is related to understanding of the definition or if this increase is related to a real increase of major incidents in these categories.

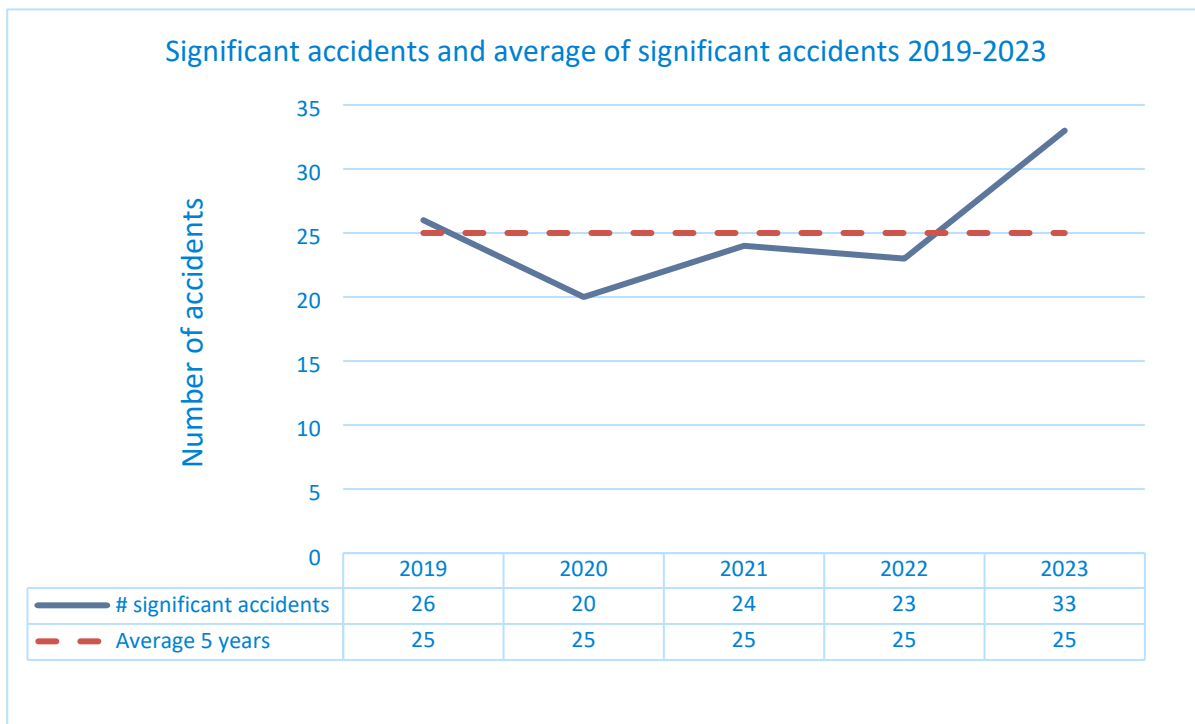


Figure 1 Significant accidents and average of significant accidents in the period 2019-2023

Figure 1 shows that the number of significant accidents in 2023 is 33. The average of significant accidents from 2019-2023 is 25. 2023 is above the average of the last 5 years of significant accidents.

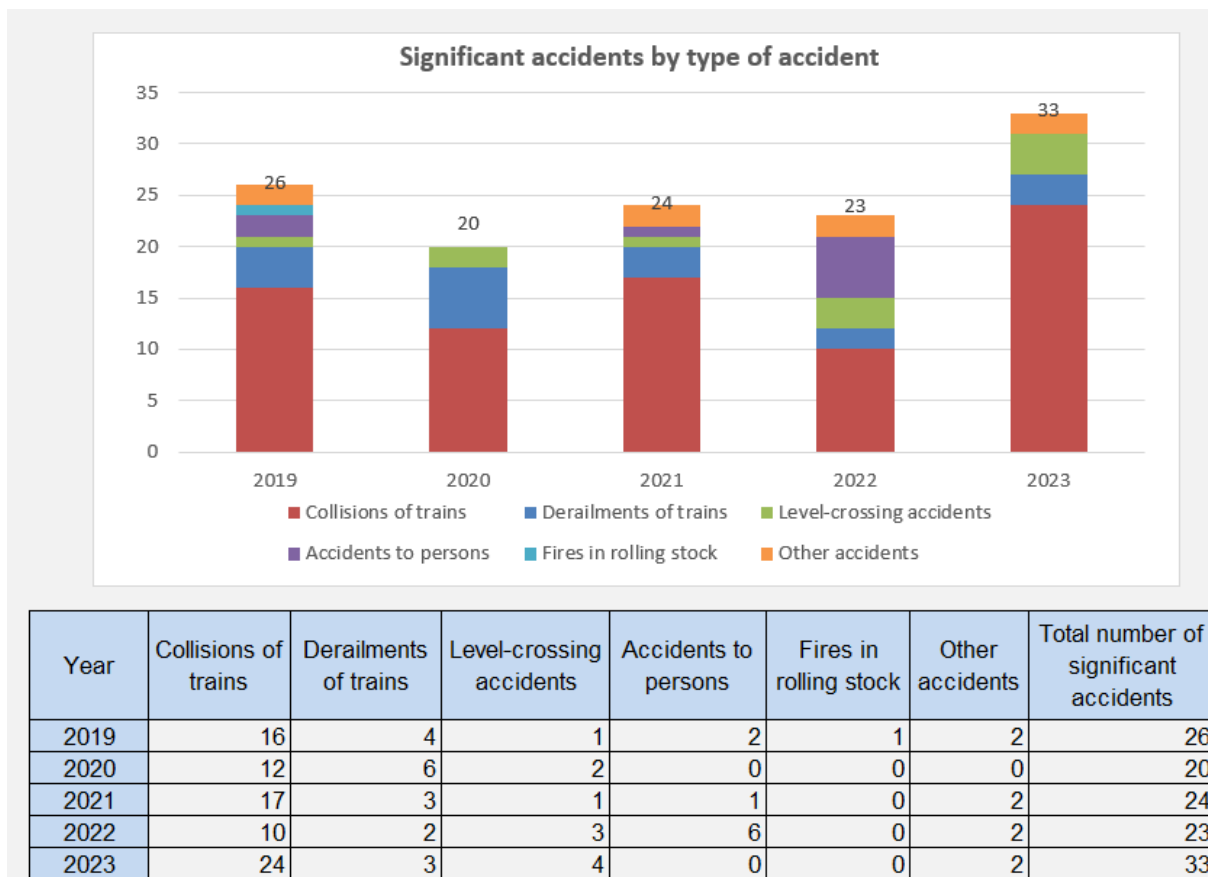


Figure 2 Significant accidents by type of accident in the period of 2019-2023.

Figure 2 shows significant accidents classified by type of accidents. 24 of the accidents in 2023 involved passenger trains, 7 freight trains and 2 other types of trains. 20 of the accidents are classified as impact with object, 17 of those were torn down overhead contact lines. From 2022 to 2023, this type of accident increased from 7 to 17. NSA Norway don't know the reason to this increase. During supervision, NSA Norway have focused on emergency preparedness to be better prepared in evacuation in such situations. In 2023, 3 of the accidents are classified as derailments of trains, 4 were level-crossing accidents. 2 of the level-crossing accidents involved pedestrians.

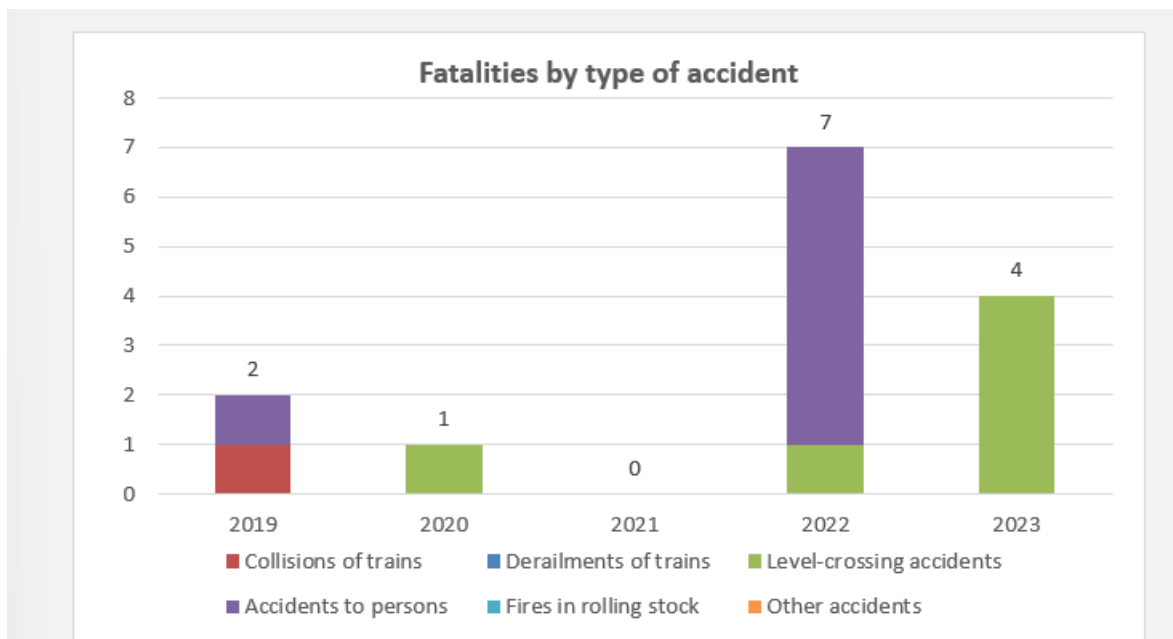


Figure 3 Fatalities by type of accident in the period of 2019-2023.

As shown in figure 3, in 2023, there were 4 fatalities related to level-crossing accidents. All fatalities in Norway last year were level-crossing accidents. NSA Norway have focused on level-crossing issues in our supervision and will continue to focus on this topic in 2024. We will also continue to monitor trends related to minor incidents. As a result of this monitoring in 2023, we have focused on maintenance at the infrastructure manager. We have monitored how the infrastructure manager have measures related to climate changes and will continue to monitor this topic in 2024. The number of fatalities in Norway is in general low. Most of the fatalities are related to level-crossings and trespassing.

One passenger was serious injured, and no employees were serious injured or killed in accidents in Norway in 2023.

Table 2 –Indicators relating to precursors to accidents in period 2019-2023

Indicators	2019	2020	2021	2022	2023	Average 2019-2023
Total number of precursors	142	149	177	135	140	149
Broken rails	50	53	103	43	53	60
Track buckles and other track misalignments	24	30	26	29	21	26
Wrong-side signalling failures	1	2	3	0	0	1

Signals passed at danger when passing a danger point	14	14	14	19	13	15
Signals passed at danger without passing a danger point	53	49	31	44	53	46
Broken wheels on rolling stock in service	2	0	1	0	0	1
Broken axles on rolling stock in service	0	0	0	0	0	0

Table 2 shows indicators related to precursors to accidents in period 2019-2023. In 2023, only the number of signals passed at danger without passing a danger point is above average. Other indicators related to precursors to accidents are below average.

5. EU legislation and regulation

5.1. Changes in legislation and regulations

In 2023, error corrections and immaterial amendments were made in several regulations, including regulations transposing the Interoperability Directive and the Railway Safety Directive.

The regulation on the certification of train drivers was amended to remove the requirement that doctors and psychologists conducting occupational psychological examinations pursuant to the regulation must have completed supplementary training approved by the Norwegian Railway Authority. After the amendment, it will be sufficient for the doctor or psychologist to have conducted or supervised at least ten examinations annually to renew the approval. This requirement ensures continuous practice and updated competence without the need for mandatory continuing education. The amendment is expected to lead to administrative savings and simplify the application process for doctors and psychologists.

The TSI revision 2023 (regulations 2023/1693, 2023/1694, 2023/1695 and 2023/1696) was not incorporated into the EEA Agreement in 2023, hence the regulations were not implemented into Norwegian law. (Regulation 2023/1693 amending TSI OPE was later incorporated and implemented in June 2024, the incorporation of other regulations are still pending as of September 2024.)

5.2. Derogation in accordance with Art. 15 RSD

No derogations in accordance with Art. 15 of the Railway Safety Directive were given.

6. Safety Certifications, Safety Authorisations and other certificates issued by the NSA

6.1 Safety Single Certificates and Safety Authorisations

Table 3 shows valid safety certificates and safety authorisations in Norway.

Table 1 Valid safety certificates and safety authorizations in Norway

Company name	History	Issuing date	Type of certificate
BLS Rail AB	New	07/04/2020	Type B
CargoNet AS	Renewed	11/03/2021	Type A
CargoNet AS	Renewed	11/03/2021	Type B
Flytoget AS	New	10/10/2022	SSC
Go Ahead Norge AS	New	03/07/2019	Type A
Go Ahead Norge AS	New	03/07/2019	Type B
Green Cargo AB	New	26/10/2023	SSC
Grenland Rail AS	Amended	20/03/2023	SSC
Hector Rail AB	New	02/06/2022	SSC
LKAB Malmtrafik	New	08/12/2023	SSC
Mantena AS	New	11/10/2019	Type A
Mantena AS	New	11/10/2019	Type B
Norsk Jernbanemuseum	New	23/06/2022	SSC
OnRail AS	New	20/04/2021	Type A
OnRail AS	New	20/04/2021	Type B
Protrain Trafik AB	Renewed	29/06/2020	Type B
Railcare T AB	New	17/11/2023	SSC
SJ AB	Amended	01/06/2018	Type B
SJ Norge AS	New	01/04/2020	Type B
SJ Norge AS	New	31/03/2020	Type A
Tågakeriet i Bergslagen AB	Amended	13/06/2022	SSC
TM Togdrift AS	New	09/10/2023	SSC
Vy Gjøvikbanen AS	Renewed	22/10/2020	Type A
Vy Gjøvikbanen AS	Renewed	22/10/2020	Type B
Vy Tog AS	New	18/09/2020	Type B
Vy Tog AS	New	18/09/2020	Type A
Vygruppen AS	Renewed	04/03/2021	Type A
Vygruppen AS	Renewed	04/03/2021	Type B
Bane NOR SF	Amended	28/09/2020	Safety authorisation

When issuing new, amended, and renewed safety certificates and safety authorisations, NSA Norway have noted these main issues:

- Risk analysis and risk assessment
- Competence management

- Supervision, safety management regarding outsourced activities (contractors)

Internal procedures, checklists and internal documentation regarding assessment reports are continuously improved.

6.2. Vehicle Authorisations

In 2023, NSA Norway made 132 decisions regarding vehicle authorisations. The authorisations are both first authorisations and new authorisations after retrofitting of ETCS on-board as part of the Norwegian ERTMS implementation plan.

6.3. Entities in Charge of Maintenance (ECM)

Not applicable.

6.4. Train drivers

In 2023, 157 train driver licenses were issued, and the total number of valid licenses was 2313 at the end of 2023. 358 driver licenses were renewed. NSA Norway suspended several licenses on a temporary basis due to medical issues, meaning that the medical requirements were not satisfied. There have been no changes in the strategy or procedure for issuing train driver licenses.

6.5. Other type of authorisation/certifications

NSA Norway may grant authorizations for placing in service new and upgraded infrastructure. The authorizations may be for the whole system or for separate subsystems.

In 2023, Certifier Nordics AS and SINTEF AS are still accredited as Notify Bodies. IM (Bane NOR SF) is still recognized as internal Assessment Body.

6.6. Contacts with other National Safety Authorities

NSA Norway has a cooperation agreement on supervision and safety certification with the NSAs in Sweden and Denmark. The cooperation includes meetings and exchange of experiences with respect to safety certification and supervision processes.

The Memorandum of Understanding was updated in 2023 to be in line with The Fourth Railway Package. The updated MoU includes Denmark.

Meetings have been held to appoint Leading NSA for several RUs, and joint supervisions have been performed.

6.7. Exchange of information between NSA and railway operators

We have in several authorisation and supervision processes experienced lack of knowledge and understanding in the use of risk acceptance criteria when performing risk analysis among the RUs. We therefor took the initiative to inform and guide about our expectations regarding risk acceptance criteria to the Norwegian RUs safety organisation.

We also arranged a breakfast meeting with the topic “avoiding single point failures in the system”.

7. Supervision

7.1. Strategy, plan, and decision-making

For 2023, the supervision program was based on the following identified risks:

- Systems of evaluating and controlling risks
- Systems for following-up of reported incidents and accidents, with emphasis on vehicles and technical installations

Expected benefits for the supervision plan were:

- To ensure sufficient following-up of reported incidents and accidents
- Investigate all RUs/IM to clarify the extent of use of risk evaluation
- To ensure that risk evaluation is the tool for controlling risks, through use of accept criteria, methods for performing risk evaluations, and that top management is using risk evaluations as a tool in decision-making

There was a need to adjust the supervision plan during the year due to unforeseen events. There was one occurrence of prolonged train stoppage in tunnels which were not properly dealt with, and we needed to perform several extensive audits. We also needed to perform an ad hoc activity after a bridge collapsed after a flood.

However, the supervision plan was more or less executed as planned during the year.

NSA Norway have an increased focus on guidance in interpretation of the regulations as supplement to supervision. There has been set up meetings open for all RUs and IM, on regularly basis for information and guidance about important topics as for example emergency preparedness and risk management system.

There is also implemented earlier warning about coercive fines for those who do not follow-up within the decided time frames.

As mentioned above, NSA Norway check the correct applications and effectiveness of the Safety Management Systems. We consequently require the companies to identify the root causes of non-compliances identified in other supervisions. NSA Norway frequently also investigate follow-up of incidents related to the topic of the audits including how the company has identified the root causes, executed corrective actions related to the root causes, and how the effect of the actions has been evaluated.

In 2023, NSA Norway did not receive any complaints on decisions from supervision activities.

7.2. Supervision results

NSA Norway carried out 11 audits in 2023. In general, railway safety is satisfactory, provided necessary corrective actions are taken to close identified non-conformities.

Dealing with accidents and incidents

- There is still a need to improve the systematic approach regarding the analysis and follow-up
- The connection to lessons learned and the positive effect of corrective measures were not properly analysed
- Use of experiences in the update of risk analysis

Automatic train control

- We have focused on the procedures within the Rus when there is an ATP failure
- Our supervisions have contributed positively to the safety management of this incidents

Prolonged train stoppage

- The emergency preparedness were not sufficient to deal with prolonged train stoppage in a tunnel

On two different occasions we performed several inspections of level crossings without safety signalling. There were discovered several departures from the regulations.

7.3. Coordination and cooperation

NSA Norway have a cooperation agreement on supervision and safety certification with the NSAs in Sweden and Denmark. The cooperation includes meetings and exchange of experience with respect to safety certification and supervision processes.

8. Application of relevant CSMs by RUs and IMs

As for 2023 there were still need for the RUs and the IM to update their Safety Management Systems to ensure that they were in accordance with CSM SMS. This seems to have been handled in a good manner within the sector.

8.1. Application of the CSM on Safety Management System

No further information.

8.2. Application of Regulation 402/2013 on the CSM for risk evaluation and assessment

In general, the sector, and in particular the national IM, have applied the regulation as expected. And the risk assessment of large projects is satisfactorily. When it comes to smaller projects the quality of the risk assessments varies, but it is improving. The sector, in general, demonstrates satisfactory performance within the area of risk assessments when it comes to competence. However, there is still room for improvement, especially when it comes to system descriptions and consistent use of risk acceptance criteria. There is no evidence within SMSs of combined use of CSM RA and CSM Monitoring.

8.3. Application of Regulation 1078/2012 on the CSM for monitoring

There were no separate activities regarding the follow up of CSM Monitoring. The RUs and the IM needs to improve their understanding and importance in the use of CSM Monitoring. The sector still struggles with working sufficiently proactive regarding safety management. The sector tends to work reactive, and without any proper cooperation or coordination. There are no differences in application between smaller or bigger companies.

8.4. Participation and Implementation of EU projects.

Norway takes part in the European Freight DAC Delivery Programme testing digital automatic couplers on 100 freight trains. NSA Norway (Statens jernbanetilsyn) is involved in the project as authorising entity in Norway and participates in ERAs Working group for the retrofitting of 100 freight trains with DAC.

9. Safety culture

9.1 Safety culture evaluation and monitoring

NSA Norway has no separate activity regarding evaluation of safety culture within the sector.

NSA Norway continues to use its own adaptation of the management maturity model and is expecting to gain indications on safety culture in the railway sector. There is still need for more experiences before getting sufficient data to make any conclusions.

9.2. Safety culture initiatives/projects

No ongoing separate work on this topic.

9.3. Safety culture communication

Some of the biggest companies focus on this topic, but NSA Norway has not had any communication activity to the stakeholders on this topic.

Annex A: Progress with Interoperability**ANNEX: Progress with Interoperability**

Please provide the following information as it is at the 31st December of the reporting year (2022).

Please refer to the Appendix for definitions.

1. Lines excluded from the scope of IOP/SAF Directive (end of year)

1a	Length of lines excluded from the scope of application of the IOP Directive [km]	0
1b	Length of lines excluded from the scope of application of the SAF Directive [km]	0

Please provide the list of lines excluded:

2. Length of new lines authorized by NSA (during the reporting year)

2a	Total length of lines [km]	13
----	----------------------------	----

3. PRM adapted stations (end of year)

3a	PRM TSI compliant railway stations	5
3b	PRM TSI compliant railway stations - partial TSI compliance	25
3c	Accessible railway stations	127
3d	Other stations	205

4. Train driver licenses (end of year)

4a	Total number of valid European licenses issued in accordance with the Directive 2007/59/EC (as amended)	2313
4b	Number of newly issued European licenses (first issuance)	157

5. Number of vehicles authorized under the interoperability Directive (EU) 2016/797 (during the reporting year)

5a	First authorization - total	
5aa	Wagon	NA
5ab	Locomotives	NA
5ac	Hauled passenger vehicles	NA
5ad	Fixed or pre-defined formation	NA
5ae	Special vehicles	NA
5b	Additional authorization - total	
5ba	Wagon	NA
5bb	Locomotives	56
5bc	Hauled passenger vehicles	NA
5bd	Fixed or pre-defined formation	NA
5be	Special vehicles	NA
5c	Type authorization - total	
5ca	Wagon	NA
5cb	Locomotives	NA

5cc	Hauled passenger vehicles	NA
5cd	Fixed or pre-defined formation	NA
5ce	Special vehicles	NA
5d	Authorizations granted after upgrade or renewal - total	
5da	Wagon	NA
5db	Locomotives	NA
5dc	Hauled passenger vehicles	NA
5de	Fixed or pre-defined formation	NA
5df	Special vehicles	NA

6. ERTMS equipped vehicles (total fleet, end of year)

6a	Tractive vehicles including trainsets equipped with ERTMS Level 1	NA
6b	Tractive vehicles including trainsets equipped with ERTMS Level 2	NA
6c	Tractive vehicles including trainsets – no ERTMS installed	NA

7. Number of NSA staff (full time equivalent employees) by the end of year

7a	FTE staff involved in safety certification	2
7b	FTE staff involved in vehicle authorization	3,5
7c	FTE staff involved in supervision	5,4
7d	FTE staff involved in other railway-related tasks	3