

# NIB Network

EUROPEAN NETWORK OF RAIL ACCIDENTS NATIONAL INVESTIGATION BODIES

---

## GUIDANCE ON SAFETY RECOMMENDATIONS

	<i>Drafted by</i>	<i>Reviewed by</i>	<i>Approved by</i>
<i>Name</i>	Task-Force 2	NIB Network	NIB Network
<i>Representative</i>	Marius W Albert <i>TF2 Chair</i>		Nelson R Oliveira <i>Chair</i>
<i>Date</i>		Adopted at the plenary meeting of 26-OCT-2021	31-JAN-2022

*Document History*

<i>Version</i>	<i>Date</i>	<i>Comments</i>
0.1	DD/MM/YYYY	Initial version
0.2	28/08/2020	[5th work meeting in TF] – First version
0.3	18/04/2021	Second draft –NIB consultation
0.4	10/06/2021	Second version – implemented NIB feedback
0.5	19/01/2022	Final version. Implemented feedback on English language
1.0	31/01/2022	Version for distribution among NIBs and publishing.

This document was developed by the NIB Network to support the NIBs in their work and is made publicly available for transparency purposes and as a reference for any other interested party.

Any use of it should be made in the adequate context and refer to its title, date and to the NIB Network.

**NIB Network**

The [European Network of Rail Accidents National Investigation Bodies](#) is an informal network created for the fulfilment of article 22.7 of Directive (EU) 2016/798 of the European Parliament and of the Council, of 11 May 2016, on railway safety, composed of representatives from the bodies in charge of the safety investigation of railway accidents of the European Union Member States plus Norway and Switzerland.

The NIB Network, with the support of the European Union Agency for Railways, undertakes an active exchange of views and experience for the purposes of the development of common investigation methods, drawing up common principles for follow up of safety recommendations and adaptation to the development of technical and scientific progress.

The NIB Network may be contacted at [NIB\\_Network@era.europa.eu](mailto:NIB_Network@era.europa.eu)

## 1. Table of content

<b>1.</b>	<b>Table of content .....</b>	<b>3</b>
<b>2.</b>	<b>Acronyms .....</b>	<b>5</b>
<b>3.</b>	<b>Intended Users of this Guidance.....</b>	<b>6</b>
<b>4.</b>	<b>Introduction .....</b>	<b>6</b>
<b>5.</b>	<b>Principles for this guidance .....</b>	<b>7</b>
<b>6.</b>	<b>What is a safety recommendation? .....</b>	<b>7</b>
6.1.	Objective of a safety recommendation .....	7
6.2.	Obligation to issue safety recommendations .....	7
6.3.	Transparency of the development of a safety recommendation.....	8
6.3.1.	Transparency during the investigation.....	8
6.3.2.	Transparency of the investigation results .....	10
6.3.3.	Transparency of the follow-up process of a safety recommendation .....	11
6.4.	Conclusion: Definition of a safety recommendation. ....	11
<b>7.</b>	<b>How to develop a safety recommendation? .....</b>	<b>12</b>
7.1.	The specific role of a NIB .....	12
7.2.	Is a safety recommendation necessary?.....	13
7.3.	Principle of ‘no-blame’ .....	15
7.4.	The addressee of a safety recommendation .....	15
7.4.1.	Addressing a safety recommendation to the Agency .....	19
7.4.2.	Addressing a safety recommendation to other bodies or authorities in the Member State .....	20
7.4.3.	Addressing a safety recommendation to other Member States.....	21
7.5.	Recommended measures .....	24
7.5.1.	Derive the safety recommendation directly from the findings.....	24
7.5.2.	Apply the principle of proportionality.....	24
7.5.3.	Don’t change the responsibility through your recommendation .....	25
7.5.4.	Draft a recommendation .....	26
7.5.5.	Let somebody review the draft recommendation .....	29
7.5.6.	Share the draft recommendations with the involved parties .....	29
7.5.7.	Respect some generic guidelines .....	29
<b>8.</b>	<b>Follow-up of safety recommendations .....</b>	<b>31</b>
8.1.	Obligation of the addressee to report back to the NIB .....	31
8.2.	Content of the report from the addressee to the NIB.....	31
8.3.	Duration of the obligation on reporting measures.....	32
8.4.	Decision when a measure is implemented .....	32
8.5.	Responsibility of the NIB receiving the feedback of the addressee .....	32
8.6.	Co-operation of NIBs.....	34
<b>9.</b>	<b>Annex I - Table for linking the investigation findings to the relevant legal provision .....</b>	<b>35</b>

- 10. Annex 2 - Checklist for safety recommendations ..... 39
- 11. Annex 3 - Follow up of safety recommendations ..... 40
- 12. Annex 4 - Example on urgent safety recommendation ..... 41
- 13. References ..... 43

## 2. Acronyms

DeBo	Designated Body
EC	European Community
ECM	Entity in charge of maintenance
ERA	European Union Agency for Railways
EU	European Union
IM	Infrastructure Manager
NIB	National Investigation Body
NoBo	Notified Body
NSA	National Safety Authority
RU	Railway Undertaking
SMS	Safety management system
TF	Task force

### 3. Intended Users of this Guidance

Members of national investigation bodies (NIBs) who are drafting safety recommendations.

For information purposes:

- › Members of national safety authorities (NSAs) who are concerned with reports and recommendations by Investigation Bodies.
- › Members of the European Union Agency for Railway (ERA) in case of a recommendation addressed to the Agency.
- › Members of other bodies who are the subject of recommendations by investigation bodies (e.g. entity in charge of maintenance (ECM), certification bodies, road authorities, emergency services).
- › The railway undertakings (RUs), infrastructure managers (IMs) and other actors in the railway sector who are affected by safety recommendations and/or interested in the processes of accident investigation.

### 4. Introduction

Article 22 (7) of Directive 2016/798 states:

*“The investigating bodies shall conduct an active exchange of views and experience for the purposes of the development of common investigation methods, drawing up common principles for follow up of safety recommendations and adaptation to the development of technical and scientific progress.”*

Safety recommendations in terms of Article 26 are a key element in the process of learning lessons from accidents and incidents.

This guidance is intended as a reference manual for NIBs in relation to Article 26 of Directive 2016/798 (EU), and provides further information and examples to facilitate a common understanding of the handling of safety recommendations from railway accident/incident investigations across the European Union.

This guidance is prepared by a Task Force (TF) composed of representatives of the NIB network and with support from ERA.

As the TF is aware that there might be specific national characteristics due to differing implementations of the Directive 2016/798 (EU), this guidance is not intended to give guidance on specific national legislation.

This guidance it is not to be used as a substitute for the Directive 2016/798 (EU).

The guidance is not legally binding.

The guidance will be reviewed by the NIB network, if necessary updated to reflect the progress of the European legal acts and standards, as well as to reflect the experience deriving from accident investigation over time. The reader is invited to consult the webpage designated by the NIB Network for information about the latest available edition of the guidance.

## 5. Principles for this guidance

To facilitate the reading of this guidance, the original text of Directive 2016/798 (EU) is stated before the corresponding item of guidance.

To differentiate the text of Directive 2016/798 (EU) from the guidance, it is presented in “*Bookman Old Style*” Italic Font, exactly as here.

## 6. What is a safety recommendation?

### 6.1. Objective of a safety recommendation

The objective of a safety recommendation is directly linked to the objective of the investigation: Article 3 (14) states:

*“ ‘investigation’ means a process conducted for the purpose of accident and incident prevention which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and, when appropriate, the making of safety recommendations”.*

Article 26 (1) states:

*“A safety recommendation issued by an investigating body shall in no case create a presumption of blame or liability for an accident or incident.”*

The purpose of accident and incident investigation is to facilitate that lessons are learned from accidents and incidents to prevent new ones.

Safety recommendations have the sole aim of improving safety by addressing effective or potential shortcomings identified during an investigation and do not correlate with factors relevant to the apportionment of blame or liability.

### 6.2. Obligation to issue safety recommendations

Article 3 “Definitions” of Directive 2016/798 EU defines under (14):

*“investigation’ means a process ... which includes, ... **when appropriate**, the making of safety recommendations”*

Article 24 (1) states:

*“An investigation of an accident or incident ... shall be the subject of reports .... The reports shall ...contain, **where appropriate**, safety recommendations.”*

The legal text could, among others, lead to the following conclusions:

- › There is no obligation to issue safety recommendations;
- › The making of a safety recommendation is a part of the investigation;
- › It is possible to issue safety recommendations before the report;
- › Where issued, safety recommendations are part of the investigation report;
- › Investigation reports can also be a thematic ‘class’ investigation, safety studies etc<sup>1</sup>.

**Please Note:**

- › 2020/572 EU Annex part 6 – Safety recommendations:  
“Where appropriate this part of the report shall set out safety recommendations for the sole aim to prevent similar occurrences in the future.
- › The absence of recommendations shall be explained.
- › Safety recommendations shall be based on established facts and additional observations thereof, as well as their analysis leading to conclusions on safety relevant causes and consequences of an occurrence.
- › Safety recommendations may also be issued in relation to additional observations in no causal or contributing context to the occurrence.”

### **6.3. Transparency of the development of a safety recommendation**

Both the development of a safety recommendation and the follow-up should be fully traceable.

#### **6.3.1. Transparency during the investigation**

Article 23 (3) is very important for the understanding of the character of safety recommendations:

*“The investigation shall be carried out with as much openness as possible, so that all parties can be heard and can share the results. The relevant infrastructure manager and railway undertakings, the national safety authority, the Agency, victims and their relatives, owners of damaged property, manufacturers, the emergency services involved and representatives of staff and users shall be given an opportunity to provide relevant technical information in order to improve the quality of the investigation report. The investigating body shall also take account of the reasonable needs of the victims and their relatives and keep them informed of the progress made in the investigation.”*

---

<sup>1</sup> Different NIBs may use different terminology for class investigation, safety studies (reference to aviation legislation) etc.

The legal text could, among others lead to the following conclusions:

- › All parties<sup>2</sup> may provide relevant information in order to improve the quality of the report.
- › As safety recommendations are element of the reports, the required openness of the investigation aims also on the quality of the safety recommendations.
- › Linked to the required openness, a safety recommendation should not be a surprise for anybody involved in an accident or incident.

**Good practice:**

Most NIBs have established:

- › Regular meetings with the involved parties, during the entire investigation process.
- › A procedure to invite all involved parties to comment on the draft report incl. draft safety recommendations.

**Please note:**

- › At first glance, the wording of the new Directive seems to be less restrictive than the old one: the new text only obliges the involved parties **to provide information** with the objective to improve the quality of the investigation report.
- › Practice showed that NIBs often were confronted with “-*opinions and views on the investigation*”. The new text strengthens the NIBs in limiting any possible discussion to the “objective” facts of the occurrence by allowing the involved parties only to “*provide relevant technical information*”.
- › From the wording, it would be sufficient to invite the involved parties to give information to the draft investigation report. However, NIBs are well advised to invite the involved parties in an earlier stage or even regularly to keep them informed and to give them the opportunity to contribute with information at each stage of the investigation. If this is not done, there is the risk that the reputation of the NIB could be damaged, e.g. if they draft an investigation report that does not include all available relevant information or even contains the wrong conclusions on the cause of the accident, consequently inadequate safety recommendations.

---

<sup>2</sup> The definition of the noun “party”, e.g. in the Cambridge dictionary (“one of the people or groups of people involved in an official disagreement, arrangement, or similar situation”)

**Please note:**

- › The approach of **regular updating** the involved parties is also subject of Recital 39 of Directive 2016/798:  
*“An investigation after a serious accident should be carried out in such a way that all parties are given the possibility to be heard and to share the results. In particular, during the investigation, the investigating body should update the parties whom it judges as having safety-related responsibility on the progress of the investigation, and should take account of their views and opinions. This will allow the investigating body to receive any additional relevant information and to be aware of different opinions on its work so that it can complete its investigation in the most appropriate manner. Such consultation should in no case lead to apportioning blame or liability but, rather, to collecting factual evidence and learning lessons for the future improvement of safety....”*
- › In case of safety-relevant findings all parties have to react as soon as reasonably possible according to their responsibilities as recorded in the Directive 2016/798 (EU) in particular Article 4 in each stage of an investigation; **the responsibilities of all actors remain unaffected by the principles of Articles 20 – 26.**

**6.3.2. Transparency of the investigation results**

In addition to the requirements on openness of the investigation, Article 24 (2) contains requirements relating to the publication and the communication of the results of the investigation of accidents and incidents:

*“The investigating body shall make public the final report in the shortest possible time and normally not later than 12 months after the date of the occurrence. If the final report cannot be made public within 12 months, the investigating body shall release an interim statement at least on each anniversary of the accident, detailing the progress of the investigation and any safety issues raised. The report, including the safety recommendations, shall be communicated to the relevant parties referred to in Article 23(3) and to bodies and parties concerned in other Member States. ...”*

With the Directive 2016/798/EU the obligation for an interim statement at least on each anniversary of the accident has been introduced. The requirement is limited to a **statement** with information at least regarding the **investigation progress and safety issues raised**.

If there is a need to immediately notify safety critical conditions this can be done by issuing an urgent safety recommendation before the investigation report. These are conditions where the risk of recurrence is considered to be great and where there is a danger to life and health. Alert on safety-critical conditions is given when the responsible<sup>3</sup> authorities or operators on their own initiative do not take action.

In some cases, it may also be necessary to give notice of safety-critical conditions in order to mark a high degree of severity or to reduce case processing time. For example, they may be initiated by related incidents/accidents while an investigation is in progress. Notice of safety-critical conditions may be given at any time during the investigation. See also Annex 4 - Example on urgent safety recommendation.

<sup>3</sup> In case of safety-relevant findings all parties have to react as soon as reasonably possible according to their responsibilities as recorded in the Directive 2004/49/EC in particular Article 4 (3) and (4), in each stage of an investigation

It may be necessary to inform other bodies immediately of safety related findings. For this reason, a common system to disseminate important safety-relevant information has been established by the Agency called Safety Information System (SIS).

Information and guidance (SIS): <https://extranet.era.europa.eu/safety/SIS/SitePages/Home.aspx>

**Good practice:**

- › Based on a similar provision in the “Regulation 996/2010 on the investigation and prevention of accidents and incidents in civil aviation”, some Member States have already implemented this obligation in their national legislation; so there is already some experience. Three ways to deal with this obligation have been observed:
  - strictly organising an investigation as a management project with the objective to finish all investigations within one year;
  - publishing an “interim statement” (or “interim report”), which includes all information available at the time of the publication; the report is already structured as the final report;
  - publishing just the basic facts of the accident, the status of the investigation and the safety issues detected so far.

### 6.3.3. Transparency of the follow-up process of a safety recommendation

Also, the follow-up process of a safety recommendation is fully transparent:

Article 26 (3) introduces the obligation of the addressee of a safety recommendation to report back to the NIB:

*“The Agency, the national safety authority and other authorities or bodies or, where appropriate, other Member States to which recommendations have been addressed, shall report back periodically to the investigating body on measures that are taken or planned as a consequence of a given recommendation.”*

Article 24 (3) obliges the NIBs to publish safety recommendations issued and actions taken after previous safety recommendations.

*“By 30 September every year the investigating body shall publish an annual report accounting for the investigations carried out in the preceding year, the safety recommendations that were issued and actions taken in accordance with recommendations issued previously.”*

## 6.4. Conclusion: Definition of a safety recommendation.

A safety recommendation is a non-mandatory, public, formal and documented proposal of a NIB based on the information and analysis derived from an investigation of an accident or incident, made solely with the intention to prevent accidents and incidents, in no case intended to create a presumption of blame or liability.

## 7. How to develop a safety recommendation?

### 7.1. The specific role of a NIB

Article 4 (1) d) of Directive 2016/798 defines the roles and responsibilities of the actors in the Union rail system:

- › the Member States,
- › the Agency,
- › RUs and IMs,
- › other actors such as manufacturers.

The tasks of the ECMs and the NSAs are specified in Article 14 and 16 of Directive 2016/798 and other EU Regulations (e.g. 2016/796, 2018/761, 2018/763 and 2019/779).

In general, each actor is responsible for its own area and for the interfaces to other actors during the whole 'plan – do – check – act' circle. All actors have the obligation to monitor their operational activities and to improve in case of deficiencies.

Certain operational activities need approval/certification/accreditation by competent EU or national public bodies or authorities and are subject to supervision of such bodies. Also, these bodies must monitor their activities and to improve, where necessary.

In this system, all actors, private and public bodies and authorities have a certain defined scope of responsibility with interfaces that need to be managed, but without any overlapping.

Accidents and incidents usually only happen if more than one element of this system fails. And in nearly all cases the causal and contributing factors<sup>4</sup> for an accident or incident are located in the field of human actions in all areas of the management cycle:

- › planning and or design;
- › operational activities;
- › monitoring activities
- › acting/adjusting measures

of all actors such as:

- › manufacturers/suppliers;
- › owners/keepers/holders;
- › RUs, IMs and ECMs;
- › NoBos and DeBos;
- › Approving and supervisory bodies and authorities.

Article 20-26 of Directive 2016/798 defines the role of NIB.

---

<sup>4</sup> See chapter 7.5.1 for more information about causal and contributing factors

In contrary to all other actors, the NIBs have a role across the whole system, from the manufacturer of a small spare part up till the Member state and its regulatory framework, or even the EU framework.

This role should be visible also in their investigations including their safety recommendations: NIBs should always apply a systemic view, also in their recommendations. Recommendations could for example aim on improvements in the companies'/bodies'/authorities' management systems and/or their safety culture.

## 7.2. Is a safety recommendation necessary?

Article 24 (1) states:

*“An investigation of an accident or incident referred to in Article 20 shall be the subject of reports in a form appropriate to the type and seriousness of the accident or incident and the relevance of the investigation findings. The reports shall state the objectives of the investigations as referred to in Article 20(1) and shall contain, where appropriate, safety recommendations.”*

With regard to Article 24 investigation reports contain safety recommendations, where appropriate. This means that not every report must contain safety recommendations, and therefore not all investigations result in safety recommendations.

A safety recommendation is a key instrument investigation bodies have. So, this instrument should be used regularly but not excessively. If safety recommendations are rarely articulated the NSA and other respective addressees would not become familiar with this instrument and the follow-up procedures. By contrast, overuse may lead to the risk that the addressees deal with safety recommendations as an unpleasant routine task.

The aim of a safety recommendation in terms of Directive 2016/798 (EU) is to improve the safety of the rail system both at a national and a European level.

Due to the fact that:

- › all actors in the railway sector have defined responsibilities with regard to safety (see section 7.1);
- › an investigation shall be carried out with as much openness as possible (Article 23 (3));
- › any measures already taken are normally part of the (draft) investigation report,

the findings of the investigation should be well-known by the different involved parties a long time before the investigation report is published. So, in many cases the responsible actor in the railway sector may have already taken measures in line with the aim of the draft recommendation, and the recommendations may not be needed anymore.

In such cases the NIB should carefully consider whether or not a safety recommendation is necessary. Under no circumstances should actors wait for a recommendation before taking necessary action to improve safety following an accident or incident.

## Examples

### 1 – Action already taken

#### **Examples:**

- › The NIB identifies a problem as part of its investigation and informs the parties involved. Appropriate action is taken and implementation is complete before the final investigation report is issued. Then a recommendation is not necessary. It is sufficient to mention the action taken in the final report.
- › In the light of the actions taken in response to the accident, by the railway undertaking and the infrastructure manager, and the ongoing development work within the NSA regarding licensing and auditing, the NIB has decided not to issue explicit recommendations. It is assumed, however, that findings recorded in this report are taken into account in the ongoing development work mentioned above.

### 2 – Action not completed before the report is published

#### **Example:**

- › NIB Y identifies a problem as part of its investigation and informs NSA Y. NSA Y initiates action, but this is not complete before the report is published. In this case the recommendations should be in the report. However, the response of the NSA and work in progress may be noted in the report.

#### **Please note:**

- › The absence of recommendations shall be explained.
- › If the content of the recommendation is solely concerned with compliance with existing rules and standards it is necessary to explain why. Further explanation of why the existing rules and standards were not followed will increase the safety learning from the investigation.
- › It is not the task of the NIB to evaluate which actors in the railway sector might be affected by the same safety issue that has been identified in relation to the specific actors in an accident. However, all NIBs should always be aware that the facts and findings of a current investigation may have a wider range of impact. When a safety issue has been satisfactorily addressed during the investigation by the involved parties which would make a recommendation unnecessary, but the NIB has concerns that the relevance to other parties has not been sufficiently addressed by the NSA, then an “open” recommendation may be the result, e.g. a recommendation to the NSA to consider if the detected problem points on a general problem which is relevant to all/other IMs or RUs. Such a safety recommendation will support the NSA in checking this.

### 7.3. Principle of ‘no-blame’

Article 26 (1) establishes the ‘no-blame’ principle for safety recommendations:

*“A safety recommendation issued by an investigating body shall in no case create a presumption of blame or liability for an accident or incident.”*

It is one of the fundamental principles of Directive 2016/798 (EU) that NIBs carry out accident investigations without apportioning blame; the whole final report should avoid phrases which might give an indication concerning blame. The regulation 2020/572 offer the possibility to anonymise the names of persons and companies: *“If anonymity is granted to persons or entities please clarify”*. Data protection issues must be respected as well.

Even where the activities of one or more individuals were identified as the main causal factors for an accident or incident, a recommendation addressing such individual issues in most cases:

- › will probably not be efficient;
- › will violate the principle of no-blame,

as any safety-relevant process/procedure should be designed in a way that the activities of just one or very few individuals cannot lead to major safety deficiencies.

The phrasing of Article 26 (1) is unambiguous and needs no further explanation: when drafting a safety recommendation – independent of addressing an individual or a collective issue - it is important to ensure that the words used are as neutral as possible. Where possible, avoid phrases such as "mistake", "lack", etc.

**Please note:**

- › Safety recommendations addressing a causal factor carry a high risk that the wording directly or indirectly might be interpreted as accusation. Despite the fact that Article 20(4) of the Directive 2016/798 (EU) states that “the investigation shall in no case be concerned with apportioning blame or liability”, judicial authorities may use the investigation report, even in court.

### 7.4. The addressee of a safety recommendation

Article 26 (2) states:

*“Recommendations shall be addressed to the national safety authority and, where needed by reason of the character of the recommendation, to the Agency, to other bodies or authorities in the Member State concerned or to other Member States. Member States, their national safety authorities and the Agency shall, within the limits of their competence, take the necessary measures to ensure that the safety recommendations issued by the investigating bodies are duly taken into consideration, and, where appropriate, acted upon.”*

There are only four formal addressees of a safety recommendation foreseen in Article 26 (2). Therefore, each safety recommendation must be clearly addressed to one of the named institutions:

- › The NSA,
- › The Agency,
- › Other bodies or authorities in the Member State concerned,
- › Other Member States.

The wording of Article 26 (2) (“...*within the limits of their competence...*”) indicates that the addressee in terms of Article 26 is that authority or body which has the power to enforce the implementation of the safety recommendation (e.g. NSA, ECM certification/accreditation body, Agency or other body).

In the majority of cases a recommendation is intended to address an issue within the area of responsibility of an RU, IM, ECM, keeper or other potential actors in the railway sector, as might be specified by national legislation; these can be referred to as the ‘end-implementers’ (i.e. the bodies that needs to take action to address the issue and have legal responsibility for the safety of its undertakings). Where it is clear to the NIB which end-implementer needs to take actions it may be thought helpful to indicate this in the text of the recommendation. This does not prevent the addressee from identifying other end-implementers that need to take action in response to a particular recommendation.

The different roles regarding a safety recommendation are summarised as follows:

**NIB:**

Issues the recommendations based on the investigation outcome.

**Addressee:**

Must make sure that appropriate action is taken, by the appropriate parties, in response to NIB recommendations. In some cases, depending on their role, the addressee could also be the end-implementer of a recommendation. They must consider the actions to be taken in response to NIB recommendations and inform the investigative body periodically “According to Article 26 (3) of the RSD” of the actions taken, or proposed to be taken, in response to a recommendation.

**End-implementer:**

Includes organisations that have legal responsibilities for railway safety (according to Article 4, 9 and Annex III of Directive 2016/798 (EU), other EU Regulations and the national legislation). End-implementers include RUs, IMs, ECMs, manufacturers, owners and other actors in the railway sector. Addressing a safety recommendation to the NSA

The NSA should be a common addressee of a safety recommendation as – apart from its legal tasks - the NSA has:

- › the best overview of the national railway sector;
- › the information to check whether the recommendation might affect a wider range of RUs, IMs or other parties in the national or European railway sector.

The NSA has the following legal tasks (the list is not exhaustive):

- › the tasks based on the national implementation of Directive 2016/798, in particular Article 16 (2) – the Directive is legally not directly applicable;
- › the tasks based on the national implementation of Directive 2016/797, in particular Article 18 - 26;
- › Supervision tasks according to Regulation 2018/761, incl. the power to take enforcement actions (Annex I, No 5 f));
- › In some Member States, act as ECM certification body (ie the duty to perform the supervision).

Addressing a recommendation to an NSA does not mean that RUs, IMs, ECMs and other parties are released from the responsibility for safety they have according to Article 4, 9 and Annex III of Directive 2016/798 (EU), other EU Regulations and the national legislation. The first responsibility for deciding how best to respond to a recommendation sits with the legal duty holder (i.e. the end-implementer). It is then for the NSA to decide whether the action proposed or taken is sufficient and to take enforcement action if necessary.

To avoid confusion, NIBs may therefore consider it important to identify the end-implementer(s) that needs to act in order to address the recommendation.

Some NIBs have good experience from addressing safety recommendations to the NSA as well as directly to the identified final implementers, including IMs, RUs, ECMs and manufacturers. These NIBs interpret the Directive 2016/798 (EU) as including these organizations in other bodies.

**Examples (example text shown in red font):**

- › The NIB recommends that {name of IM} improves its procedures for inspections following track work with the objective of ensuring that track is handed back in a fit condition for the safe passage of trains.
- › The NSA should ensure that appropriate action is taken in response to this recommendation (*NOTE: since this last sentence will apply to most recommendations it could alternatively be presented as an explanatory note in the recommendations section of the report and omitted from each individual recommendation*).
- › The NIB recommends that {name of IM} should undertake a review of its SMS, with the objective of assessing the adequacy of the safety arrangements that apply to the planning, execution and closing of track possessions. The NSA should monitor this review and ensure that appropriate action is taken.
- › Addressing safety recommendations to the NSA as well as directly to the identified end-implementers:
  - The {name of RU} is recommended to consider if it is possible to improve the physical working conditions regarding the visibility, lighting and sound conditions for the driver in this type of locomotive.
  - The NSA, possibly in conjunction with the Work Environment Authority, is recommended to within the framework of the agency's supervisory efforts review how other railway undertakings handle the visibility, lighting and sound conditions in older types of locomotives.

The potential benefits of so identifying the end-implementer(s) are:

- › clear identification of the parties that must take action (the end-implementers), fully consistent with the objective of railway safety;
- › reinforcement of the incentive for end-implementers to implement safety measures;
- › fostering good visibility and recognition of the investigating body by these actors (this practice is thus widespread in Europe);
- › preserving the freedom of the NSA to decide (or not) to use its enforcing power to ensure implementation of the recommendations;

In some cases, it may be appropriate to identify multiple end-implementers, either working alone or together.

In some cases, a NIB may have reason to believe that the actions identified in a recommendation should be applied by railway companies that were outside the scope of the investigation. Since the NSA is best qualified to judge the need to apply safety learning more widely, the NIB may choose to add a note suggesting to the NSA that consideration be given to applying the recommendation more widely. Such a note might read as shown below:

“The NSA should consider the extent to which this recommendation should also be taken into account by IMs/RUs that were outside the scope of this investigation.”

**Example: (example text shown in red font)**

- › The NIB recommends that {name of IM and RU} jointly review the rules relating to the form and contents of verbal communication between the traffic managers and the train personnel and make such improvements that are found to be necessary. The NSA should monitor this review and ensure that appropriate action is taken. *The NSA should consider the extent to which this recommendation should also be taken into account by IMs and RUs that were outside the scope of this investigation.*

In cases where it is less clear which end-implementer needs to take action, the NIB might prefer to be less specific in the wording of the recommendation and instead describe the type of organisation that should take action (eg ‘freight train operators’ or ‘Entities in Charge of Maintenance’).

**Examples: (example text shown in red font)**

- › The NIB recommends that freight train operators strengthen their procedures to ensure that the brakes on freight wagons are properly engaged when parked. The NSA should ensure that appropriate action is taken in response to this recommendation.
- › The NIB recommends that Entities in Charge of Maintenance review their processes for the maintenance of braking systems on freight wagons that convey dangerous goods with the objective of ensuring that conditions that may lead to safety critical malfunctions are detected and corrected before the safe transit of trains is endangered. The certification body should monitor these reviews and ensure that appropriate action is taken by all ECMs.

There will also be recommendations where the primary action is required to be taken by the NSA itself rather than an end-implementer, such as actions linked to the NSA's supervisory regime. In other cases, the NIB might consider that the NSA should lead a review of a safety issue rather than the end-implementer.

In both such instances the responsibility of the NSA to take appropriate action should be clearly indicated in the recommendation.

**Examples: (example text shown in red font)**

- › The NIB recommends that the NSA should undertake a review of the SMS of IM, with the objective of assessing the adequacy of the safety arrangements that apply to the planning, execution and closing of track possessions. The NSA should then ensure that appropriate action is taken by IM in response to the findings of this review.
- › The NIB recommends that the NSA should review its supervisory regime as it applies to risk management of level crossings by the IM(s). The purpose of the review is to evaluate the efficacy of the current arrangements and to identify the scope for improvements that would contribute to improved safety.

However, NIBs need to be aware that reliance on the NSA to take the primary actions in response to a recommendation may not always be the best approach because:

- › a change to an NSA's supervisory regime is a very indirect and slow way of addressing an immediate risk;
- › the NSA can only enforce actions by others if it can demonstrate a legal requirement for this to happen (this is often difficult to prove);
- › NSAs in most EU states are not in a position to command change.

In practical terms, NIBs may consider a general statement within the recommendations section of the report addressing the recommendations towards the NSA, while also clearly identifying the end-implementers in each individual recommendation. An example of such an explanatory note is shown below:

“These recommendations are addressed to {NSA} which has a duty to ensure that the recommendations are duly considered by the end-implementer(s) and appropriate action is taken”

#### **7.4.1. Addressing a safety recommendation to the Agency**

Where the Agency is responsible for taking an action, the Agency is the correct addressee of safety recommendations. The full range of tasks and responsibilities of the Agency is listed in Regulation 2018/796 EU (“Agency Regulation”) in Article 4:

*“The Agency may:*

- › *address recommendations to the Commission concerning the application of Articles 13, 15, 17, 19, 35, 36 and 37;*
- › *address recommendations to Member States concerning the application of Article 34;*
- › *issue opinions to the Commission pursuant to Article 10(2) and Article 42, and to the authorities concerned in the Member States pursuant to Articles 10, 25 and 26;*
- › *address recommendations to national safety authorities pursuant to Article 33(4);*
- › *issue decisions pursuant to Articles 14, 20, 21 and 22;*
- › *issue opinions constituting acceptable means of compliance pursuant to Article 19;*

- › *issue technical documents pursuant to Article 19;*
- › *issue audit reports pursuant to Articles 33 and 34;*
- › *issue guidelines and other non-binding documents facilitating application of railway safety and interoperability legislation pursuant to Articles 13, 19, 28, 32, 33 and 37.”*

In most cases, recommendations addressed to the Agency might refer to Article 4 (e), as Articles 14, 20, 21 and 22 concern:

- › single safety certification;
- › authorisations for the placing on the market of vehicles or vehicle types;
- › placing in service of trackside control-command and signalling subsystems. Other tasks mentioned under Article 4 of the Agency Regulation might also be the subject of safety recommendations, but detailed provisions would go beyond the scope of this guidance.

**Please note:**

- › Addressing a safety recommendation to the Agency necessarily means that the investigation has revealed a safety issue within the remits of the Agency. Whenever this is the case, the Agency must be considered as a “party” in terms of Article 23 (3) <sup>5</sup> RSD; the provisions of Article 23 (3) regarding the involvement of the Agency automatically apply. This may also help the NIB to avoid issuing recommendations to the wrong addressee or with a wrong or not traceable<sup>6</sup> content, which might cause damage to the reputation of a NIB.

#### **7.4.2. Addressing a safety recommendation to other bodies or authorities in the Member State**

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 - including bodies outside of the railway sector - which have the power to enforce the recommended measures; for example the emergency services, the road authorities, the police, the ministries etc.

In several Member States the correct addressee for a safety recommendation regarding the work of a conformity assessment body (e.g. NoBo, DeBo, ECM) might be the accreditation body, where the accreditation body is notified for these tasks.

---

<sup>5</sup> *The investigation shall be carried out with as much openness as possible, so that all parties can be heard and can share the results. The relevant infrastructure manager and railway undertakings, the national safety authority, the Agency, victims and their relatives, owners of damaged property, manufacturers, the emergency services involved and representatives of staff and users shall be given an opportunity to provide relevant technical information in order to improve the quality of the investigation report. The investigating body shall also take account of the reasonable needs of the victims and their relatives and keep them informed of the progress made in the investigation.*

<sup>6</sup> *Traceability is further explained in section 7.5.1*

Where a technical standard has been identified as a causal or contributing factor in an accident or incident, a standardisation body could be an addressee as well. In this instance the reporting and feedback on actions taken should be made directly from that body to the NIB and the NIB will report on the response to the recommendation in its annual report.

**Examples:**

- › After a level-crossing accident the NIB made findings about deficiencies in the roadside equipment.  
**A recommendation might be addressed to the responsible road authority.**
- › After a train collision the control centre of the emergency services was informed about the occurrence correctly by the railway undertaking. Due to a technical communication problem the emergency services were first directed to a wrong place. As a result, the rescue of the injured persons was delayed.  
**A recommendation might be addressed to the authority responsible for the emergency service.**
- › After a train derailment, the NIB found an unclear provision in an industry standard.  
**A recommendation might be addressed to the relevant national or international standardisation body.**

**Please note:**

- › As other bodies and authorities may not be familiar with Directive 2016/798 (EU) in such cases it is recommended to advise them of the obligations of the addressee regarding Article 26 (3) <sup>7</sup>when issuing a recommendation to them.

### **7.4.3. [Addressing a safety recommendation to other Member States](#)**

Where an addressee would fall within the scope of another Member State the NIB may address recommendations to another Member State.

In most cases, the intended safety recommendation to another Member State will cover issues within the scope of the NSA in the other Member State.

---

<sup>7</sup> The Agency, the national safety authority and other authorities or bodies or, where appropriate, other Member States to which recommendations have been addressed, shall report back periodically to the investigating body on measures that are taken or planned as a consequence of a given recommendation.

In the past, the communication between authorities and bodies of different Member States were primary governed by high-level diplomatic rules. Meanwhile, EU legislation more frequently requires agreements and contracts between bodies and authorities in different Member States in order to carry out a task commonly or in close co-operation.

For the Single European Rail Area (SERA), amongst others, the following provision of Regulation (EU/2018/761, Article applies:

*“1. National safety authorities involved in the supervision of an infrastructure manager with cross-border infrastructure(s) or of a railway undertaking operating in more than one Member State **shall coordinate** their approach to supervision in accordance with Article 17(7) and (9) of Directive (EU) 2016/798.*

...

*2. For the purposes of paragraph 1, **the national safety authorities shall develop arrangements** based on the framework for coordinated and joint supervision set out in Annex II.*

*3. **National safety authorities** shall also develop cooperation arrangements **with the national investigation bodies**, certification bodies for entities in charge of maintenance and other competent authorities or bodies.*

**Please note:**

› Investigation with another NIB

In this case NIBs from two different countries cooperate. The NIB in the country where the recommendation applies will address the recommendation to their NSA. See also Directive 2016/798 (EU) Article 26 (2)<sup>8</sup>.

› Follow up by the NIB in the relevant country

The NIB that is leading the investigation informs the NIB of the relevant country of the findings in the investigation and asks them to monitor the implementation status of the recommendation.

Apart from this, there are two options for informing the NSA of another Member State more directly described in the following chapters.

---

<sup>8</sup> Recommendations shall be addressed to the national safety authority and, where needed by reason of the character of the recommendation, to the Agency, to other bodies or authorities in the Member State concerned or to other Member States. Member States, their national safety authorities and the Agency shall, within the limits of their competence, take the necessary measures to ensure that the safety recommendations issued by the investigating bodies are duly taken into consideration, and, where appropriate, acted upon

#### 7.4.3.1. Involving the NIB of another Member State in an investigation

Article 23 (1) states

*“... Investigating bodies from other Member States shall be invited, if appropriate, to participate in an investigation where:*

*a railway undertaking established and licensed in one of those Member States is involved in the accident or incident; or*

*a vehicle registered or maintained in one of those Member States is involved in the accident or incident.*

*...*

*This paragraph shall not preclude Member States from agreeing that the relevant bodies shall carry out investigations in cooperation with each other in other circumstances.”*

**Please note:**

- › The Agency encourages NIBs to develop co-operation agreements. This might help all NIBs to react quickly in particular on major accidents. Examples on Memoranda of Understanding (MOU) between RAIB and NIB France and RAIB and the NIB Ireland is published on the [RAIB webpage](#).
- › Where these preconditions stated in article 23 (1) are present, the competent NIB should inform the NIB of the other Member State about the occurrence and invite them to participate in the investigation or even to conduct the investigation in cooperation. In this case the safety recommendation can be drafted by both NIBs together, and both NIBs can distribute them to the addressees in its own country.

#### 7.4.3.2. Recommending that the NSA shares information with the relevant NSA

If the investigation identifies issues in other Member States, or there are vehicles, staff or anything else from another Member State that has a role in the accident, the competent NIB could address a recommendation to the NSA to inform the NSA(s) of (an)other Member State(s) about the accident, the results of the investigation, the measures taken and the recommendations given by NIB. It is the responsibility of the NSA of the other Member State, to consider the appropriate measures in its own Member State.

**Please note:**

- › An NSA cannot initiate concrete measures in another Member State. The NSA in the other Member State should act within its own responsibility. So, it is appropriate only for an NSA to inform the NSA of another Member State, of recommendations arising from the investigation.

In the rare cases that a NIB wants to address a safety recommendation to another body or authority in another Member State, the NIB should strive for a pragmatic individual solution; the NIB in that Member State should support this.

## 7.5. Recommended measures

### 7.5.1. Derive the safety recommendation directly from the findings

The ultimate purpose of a safety investigation and the resulting recommendations is to enhance safety. Usually, a recommendation will address one of three categories:

- › causal and contributing factors to the occurrence, including both immediate and deeper systemic factors, of an accident or incident,
- › consequences of an accident or incident,
- › other observations during an investigation of an accident or incident.

For all categories NIBs should apply the principle that the safety recommendation **must directly be derived from the findings of the investigation**. The challenge, in order to convince stakeholders of the value of the issued recommendation, is to “prove” that your recommendation fits the data and resulting analysis and conclusions. This should be done by leaving some kind of traceable analysis. When doing this, a possible dilemma is that the most effective findings for safety enhancement are often the most difficult to justify, because they are often related to the safety (management) system and factors that are more remote from the actual occurrence itself. A possible solution to this, is to judge whether a safety factor was a contributing or causal factor in term of its relationship to another contributing or causal factor, rather than trying to justify a direct relationship to the occurrence.

#### **Good practice:**

- › In order to ensure that the recommendation is directly linked to the factors identified in the investigations, it may help to either write an explanatory introduction to a safety recommendation or to link the recommendation to the related section in the investigation report.

### 7.5.2. Apply the principle of proportionality

In principle, the NIB has a wide range to recommend measures which are within the legal scope of the addressee. An extreme example would be a recommendation to the NSA to withdraw the safety certificate of a RU. However, since the NIB has probably only investigated certain aspects of the RU’s SMS, and cannot foresee the consequences of such a drastic measure, such a recommendation would risk breaching the principle of proportionality as established in the legal framework, e.g. Recital (9) of Regulation 2018/761: “Enforcement actions taken by national safety authorities to ensure that railway undertakings and infrastructure managers achieve legal compliance as referred to in Article 17(1) of Directive (EU) 2016/798 should be proportionate to any risks to safety or to the potential seriousness of any non-compliance with their legal obligations.”

NIBs should apply this principle of proportionality when drafting safety recommendations.

### 7.5.3. Don't change the responsibility through your recommendation

Any responsibility related to railway safety is clearly allocated to one of the actors.

Usually, the recommended measure should aim to bring about a **review or improvement of, the relevant processes/procedures** by the end-implementer, but should also describe **the objective of this review or change**. A **review** will normally be recommended where the NIB has yet to prove the need for change, an **improvement** where the investigation has clearly demonstrated the need to address a weakness in the existing safety arrangements. The NIB should generally avoid directly intervening with the management systems of the body/authority as listed in Article 26 (2)<sup>9</sup> by issuing prescriptive recommendations; the responsibility for the overall functioning of the processes/procedures must be left with the body/authority concerned. In addition, the NIB has probably only investigated one or few areas of the actor's <sup>10</sup>overall management system, and cannot foresee the consequences of a prescriptive measure for the whole system. However, in exceptional circumstances the NIB may feel it appropriate to recommend a **specific action** to address an obvious and well-evidenced weakness.

The table in Annex 1 might help to find relevant areas to investigate.

**Please note:**

- › With the introduction of Regulations:
  - 2016/796; concerning the European Union Agency for Railways,
  - 2018/761; concerning the common safety methods for supervision,
  - 2019/779; concerning certification of entities in charge of maintenance.
  
- › The tasks of the Agency, NSA and the ECM certification bodies are clearly defined and in most cases listed in an Annex.
  
- › They can be distinguished into two groups:
  - Processes and procedures regarding those bodies' own performance (e.g. competence management),
  - Processes and procedures regarding the approval or supervision regime.

---

<sup>9</sup> This refers only to the addressees listed under Article 26 (2): The NSA, the Agency, other bodies or authorities in the Member State concerned and other Member States

<sup>10</sup> The term "actor" here include companies such as RU, IM or ECM

#### 7.5.4. Draft a recommendation

Good practices of safety recommendations often contain some of the elements listed below:

*a) **Headline or title***

Some Member States use a headline or title for each single recommendation, some simply number their recommendations. In the cases where headlines are used usually the number of the recommendation (see b) is at least part of the headline.

*b) **Number***

A numeration system supports the traceability of a recommendation. Currently most Member States use national systems for numeration.

*c) **Introduction***

Some Member States give a short introduction of up to two sentences for each safety recommendation e.g. text clearly linking the recommendation to a finding(s) revealed in the investigation. Such introduction may support the understanding of the context of a recommendation and increases traceability.

**Please note:**

- › The authors of safety recommendations should be aware that users of the ERAIL accident database are not often able to read the whole accident report due to insufficient language knowledge or for time restrictions. Usually only parts of a report (summary, recommendations and perhaps the causal factors) are available in English. For details see the document “GUIDANCE ON GOOD REPORTING PRACTICE”.
- › The legislation requires the summary to include safety recommendation, see COMMISSION IMPLEMENTING REGULATION (EU) 2020/572.
- › A short introduction may facilitate the understanding of a safety recommendation without further information. The discussion within the NIB network showed that there is a different approach regarding drafting recommendations in a way that they are comprehensible without further information (“stand-alone”-recommendations). From the viewpoint of some NIBs “stand-alone”-recommendations are not desirable, because there is a risk of misunderstanding without reading the whole investigation report.
- › However, other NIBs prefer the approach of “stand-alone”-recommendations which are comprehensible without further context.
- › A short introduction may also help to ensure that the recommendation is directly linked to one identified specific causal factor of the accident.

*d) The intention of the recommendation*

Safety recommendations should always reflect the intention of Directive 2016/798 (EU) (recital 5: “*railway safety should be generally maintained and, when practicable, continuously improved*”). It is therefore helpful to describe the intention of the recommendation. This will enable the reader to understand how the recommendation will contribute to the improvement of safety.

*e) The organisation which issues the recommendation*

Some NIBs always mention expressly the issuer of a recommendation – the NIB itself - in each single recommendation. This practice may support the understanding of a safety recommendation, particularly for those NIBs who support the “stand-alone”-approach.

**Please note:**

- › The practice to explicitly name the issuer of the recommendation within the recommendation supports sharing information between EU-NIBs as well as with the public. **Experience shows that in the ERAIL database the information about the issuer is often not included.**

*f) The addressee of the recommendation*

Most of the NIBs always name the addressee expressly in the recommendation. Some other mention the addressee in a separate introduction or footnote (“*The following recommendations are addressed to X:*”), in particular in those cases where more than one recommendation is addressed to one addressee.

**Please note:**

- › The practice to name the addressee within the recommendation supports sharing information between EU-NIBs as well as with the public. **Experience shows that in the ERAIL database the information about the addressee is often not included.**

*g) The recommended measure*

The safety recommendation must clearly describe the **actions required by the end-implementer and/or addressee** (see section 7.4).

When drafting recommendations NIBs should always ensure that the actions required are appropriate given the legal duties of the addressee and end-implementer.

**Good practice:**

- › Areas of weakness in the safety management arrangements of an RU or IM should lead to recommendations to the RU or IM to address those issues (and the NSA must ensure that appropriate action is taken).
- › Issues identified with a supervisory regime should lead to e.g. recommendations to the NSA to review or improve the supervisory regime, or recommendations regarding issues identified regarding the national regulations.
- › Recommendations to the Agency/NSA could aim on areas such as: focussing on a certain issue when renewing the safety certificate; issues identified regarding the EU regulations; or other issues at a European level.
- › Problems identified in the area of maintenance of vehicles<sup>11</sup> should lead to recommendations to the ECM certification body to take the necessary measures within their scope according to Article 8 of Regulation 2018/779.

**Good practice:**

- › As stated in section 7.4 of this guidance, where it is clear to the NIB which end-implementer (e.g. a RU/IM/ECM) needs to take actions it will often be helpful to the NSA to indicate this in the text of the recommendation.
- › Of course, problems identified in the processes of the addressee directly, should be addressed accordingly.

This means, for example

- › Issues identified in the process of placing on the market of rolling stock should lead to recommendations addressed to the Agency/NSA e.g. to review/improve the process/procedure;
- › Issues identified in supervision/surveillance processes should lead to recommendations to the NSA/ECM certification body.
- › In general, there is a wide range of discretion for a NIB to recommend measures within the legal scope of the addressee.

**Please note:**

- › It is not the task of the NIB to check whether other parties are concerned by the same problem. However, the NIBs should take into account that other parties may be concerned, and draft their recommendation accordingly, e.g. by using phrases like “RUs using locomotive type xxx”.

---

<sup>11</sup> in cases where there is no certified ECM necessary (see Article 3, No. 2 (b) of Regulation 2019/779), the recommendation must in analogy be addressed to the NSA regarding the supervision regime

#### *h) Time horizon*

It is the responsibility of the addressee to decide whether the actions taken in response to a recommendation are being addressed sufficiently quickly, or whether the end-implementer has the correct priorities. For this reason, NIBs will often feel that it is inappropriate to set timescales for the implementation of recommendations. To do so, creates a risk of unduly influencing the end-implementers decision-making (with possible unintended consequences), or interfering with the NSA's supervisory role. However, if the actions recommended are perceived to be particularly urgent the NIB may sometimes choose to highlight this in the text of the recommendation.

#### *i) Reference to sections in the final report*

Some NIBs refer, within the recommendation itself or in an additional remark, to the section of the final investigation report the recommendation is linked to. This practice is useful in all cases when the link to the reason for a recommendation is not stated in the recommendation itself or identifiable otherwise.

### **7.5.5. Let somebody review the draft recommendation**

Most NIBs have implemented a process to review draft recommendations internally. Some NIBs work with a checklist, see also Annex 2.

### **7.5.6. Share the draft recommendations with the involved parties**

The safety recommendations should - as part of the draft final investigation reports - be sent to all involved parties, see section 6.3.1.

The content of the safety recommendation should not be subject of any negotiations with the involved parties. However, any suggestion to improve the wording might help ensure that the recommendations are accepted by the addressee and hence are more effective.

### **7.5.7. Respect some generic guidelines**

The following generic guidelines apply for safety recommendations:

- › For clarity, each recommendation should only address one issue.
- › If there is more than one recommendation in a report it is useful to number them and group them e.g. according to the addressee (in most cases the NSA), by theme or importance.
- › A recommendation should be drafted succinctly, avoiding the use of unnecessary or ambiguous words.
- › The wording should be such that there is clarity regarding what action/change is required. The end-implementers and addressees must clearly understand what action the NIB recommends.
- › The wording of a recommendation should facilitate clear assessment of whether the recommended measure is implemented entirely, partly or not at all.
- › There should be normally no prioritisation between the issued recommendations. However, if necessary from the viewpoint of the NIB, the urgency of a recommended action may be highlighted.
- › Usually a Safety Recommendation should guide the affected parties on what safety objective is to be achieved rather than give prescriptive solutions.

The evaluation of the ERAIL database shows that no recommendation contains all listed elements. The following two examples (slightly modified in order to support the guidelines) may support the understanding of the section above. Further guidance is provided at Annex 2.

Nr.	Recommendation text	Reference
1	<p>Risk of climbing on parked rolling stock with wagon type xxxx - CO-2020-11</p> <p>On 24 February 2019, one person died and two were seriously injured when they climbed onto a parked train set consisting of freight wagon type xxxx at A-Town train formation yard. The investigation showed that FreightRail Ltd. (FR) has not considered the risk of third-party climbing when they started operating this wagon type in April 2017. Therefore, this risk was not covered by FR's requirements for regular inspection of the train yard during parking of rolling stock.</p> <p>Based on the preliminary results of the investigation, FR has already announced it is to conduct a risk analyses regarding third-party climbing for different types of rolling stock with the owners of freight wagons.</p> <p>NIB Coronia sees the need for FR to adapt its approach to risk-assessment when introducing operational changes such as the introduction of new wagon types as required by Regulation 2013/402. The NIB Coronia recommends to the NSA Coronia to include in its supervision plan for 2020 these risk assessment activities of FR with the objective to ensure that the risks arising from the introduction of new wagon types and all (operational) changes are adequately covered by the FR's procedures.</p>	<p>a) b)</p> <p>c)</p> <p>d)</p> <p>e) f)</p> <p>g)</p>
2	<p>Barriers not closed while trains passing the level crossing (LC) – CO-2016-21</p> <p>On 17 April 2015, two trains passed the level crossing at km 23,437 on the line between Hejmurbo and Ćefurbo with open barriers. The investigation showed that in both cases, the LC guard forgot the approaching train announcement. At the time of the incident, he was under medical treatment and had a medical certificate certifying some restrictions regarding his ability to concentrate during the treatment. The information was not forwarded to the IM's regional staff member responsible for shift planning.</p> <p>NIB Coronia recommends the NSA Coronia to review within its supervision regime the IM's provisions and practice regarding the competence management systems, in particular regarding Regulation 2018/762, Annex II No. 4.2.1. e) (checks of psychological and physical fitness of staff) and the communication of safety-relevant information (No. 4.4.2) with the objective of ensuring that staff responsible for shift-planning are aware of any restriction of staff competence to undertake safety-critical tasks. Due to the high risk, NIB Coronia sees the need for immediately implementing this recommendation.</p> <p>Reference: para C-262, C-270 of the final report</p>	<p>a) b)</p> <p>c)</p> <p>e) f)</p> <p>g)</p> <p>h)</p> <p>i)</p>

Both recommendations are drafted in accordance with the general guidelines (see section 7.7).

## 8. Follow-up of safety recommendations

### 8.1. Obligation of the addressee to report back to the NIB

Article 26 (3) of Directive 2016/798 states:

*“The Agency, the national safety authority and other authorities or bodies or, where appropriate, other Member States to which recommendations have been addressed, shall report back periodically to the investigating body on measures that are taken or planned as a consequence of a given recommendation”*

Reporting back allows the NIB to consider the effectiveness of the recommendations made and to use the feedback to improve the development of future recommendations. Other NIBs will also benefit if the feedback reports are publicly available.

The addressees of safety recommendations shall report back “*periodically*”. Directive 2004/49 used the term “*at least annually*”. The network of NIBs has agreed that “periodically” cannot refer to periods longer than one year as the NIBs still have the obligation to publish an annual report including safety recommendations and actions taken in accordance with earlier recommendations.

#### Please note:

- › Also the NSAs must report back separately to the NIBs about the follow-up of the recommendation; it is not sufficient to mention those activities in the annual reports of the NSA because:
  - the addressees of the NSA’s annual report and the feedback report after recommendations are different,
  - the feedback of the NSA’s to the recommendations of the NIB is not mentioned as an obligatory part of the NSA’s annual report in terms of Article 19,
  - the requirement of the Directive 2016/798/EC for the timescale of the annual NSA reports (“... *by 30 September.*”) is different from those for the feedback reports after safety recommendations (“... *periodically.*”).

### 8.2. Content of the report from the addressee to the NIB

The required content of the report of the addressee of a recommendation to the NIB is clearly stated in Article 26 (3): the report must contain **measures that are taken or planned** as a consequence of a given recommendation. “*Measures that are taken*” include:

- › decisions of the addressee not to follow a recommendation;
- › measures that are implemented or in the process of implementation.

**Please note:**

- › When the addressee reports planned measures a time frame for the implementation should also be reported. If there are not definite timescales the addressee should explain why.

### 8.3. Duration of the obligation on reporting measures

Since it is the task of the addressee of a recommendation to report back “*periodically*” (Article 26 (3)) and the duty of reporting back is linked with **each** recommendation (please note the singular form “... *of a given recommendation.*” at the end of Article 26 (3)), this obligation continues until a certain point in time.

There are four possibilities:

1. The recommendation is implemented as it was given by the NIB;
2. The addressee accepts the necessity for improvement of safety but permitted or took other measures other than those recommended to mitigate the risk;

In both cases the obligation of reporting back ends when the measures to mitigate the risk have been implemented.

3. The addressee accepts the reason for the suggested improvement but came, after due consideration, to the conclusion that no additional measures are necessary as the risk revealed by an accident or incident is covered by valid risk acceptance criteria;
4. The addressee does not accept the recommendation.

In both cases the NSA’s obligation ends after the first report.

The NIBs should endeavour in their relationship with the NSAs to be involved in this process and to be kept informed of the decision.

### 8.4. Decision when a measure is implemented

It is within the discretion of the addressee to decide when a recommended measure (or another measure to deal with the identified risk) is to be considered as “implemented”. But depending on the national legislation of Member States, it could be possible for the NIB issuing the recommendation to decide when a recommended measure (or another measure to deal with the identified risk) is to be considered as “implemented”.

### 8.5. Responsibility of the NIB receiving the feedback of the addressee

There is no obligation for the NIB:

- › to check the content of the report of the addressee;
- › to comment on the report;
- › to comment on or to agree with the measures the addressee has taken, if they didn’t follow the recommendation.

The only responsibility of the NIBs is to report actions taken after a recommendation to the Agency within their annual report in terms of Article 24 (3).

**Please note:**

- › Even if there is no **obligation** to check or to comment on the report of the addressee the NIB may comment on the kind of the measures planned or taken, the intended time frame or other issues. This includes the possibility to express a deviating opinion about the assessment of the addressee that a recommendation is implemented.
- › One of the reasons why the addressees have to report back is to give the NIB the opportunity to review its practice in drafting recommendations. Generally, it should be the objective of a NIB to draft its recommendations in a way that it is evident that it will contribute meaningfully to the improvement of safety by eliminating the identified causal or contributory factor to the occurrence, so that the recommendation should naturally be accepted by the addressee.
- › Another important reason for the obligation of reporting back is to contribute to a better understanding of the NIB about changes to the environment for future investigations.
- › The NIBs do not have an obligation according to the Directive 798/2016 to comment on the measures the addressee plans to implement. There are different approaches in the different member states. Some states comment on to the implementation of the recommendations.

**Good practice:**

- › Part of the quality management system of the NIB is usually a data tool which facilitates the NIB to check recommendations issued in cases of previous similar accidents/incidents and the reports of the addressee in those cases.
- › In some Member States, when issuing a safety recommendation, the NIB asks the addressee of the recommendation for short-term feedback (e.g. within 90 days) about the addressee's and/or the end implementers decision to implement a recommendation or not, about the time frame of implementation and other information.
- › In other Member States there are regular meetings between the NIB and NSA concerning the follow-up of the recommendation.
- › In any case, an open dialogue and a mutual sharing of safety information between the addressee and the NIB supports the appropriate follow-up of a safety recommendation.

## 8.6. Co-operation of NIBs

Article 22 (7) of Directive 2016/798 states:

*“The investigating bodies shall conduct an active exchange of views and experience for the purposes of the development of common investigation methods, drawing up common principles for follow up of safety recommendations and adaptation to the development of technical and scientific progress.”*

Amongst others, there is an obligation for the investigation bodies to draw up common principles for follow-up of safety recommendations.

With this guidance, this obligation is partly fulfilled. However, there are some issues for further development, e.g.

- › Analysis of recommendation (specific/not specific);
- › Subject of the recommendation (technical issue/SMS or other management system).

This task will be done over time by the Task-Force, as experience is gathered on the application of this Guidance.

## 9. Annex I - Table for linking the investigation findings to the relevant legal provision

Finding/Non-compliance in the area of	Finding should be linked to the relevant clause/section of	Potential addressee	Potential measure	remark
SMS of a RU	2018/762 Annex I	NSA	Any action within the supervision regime covered by Regulation 2018/761 Annex I in particular No 4 b) and c), No 5 e) and f) and No 6	It is the full responsibility of the RU to react appropriately to the findings of a NIB regarding its SMS, whether located in the SMS documentation or the practical implementation of the provisions.
		Agency	To take necessary measures	The Agency can revoke or restrict an SSC but only after co-ordination with the NSA(s). Usually, such activity can only be the result of a process triggered by a recommendation to the NSA
SMS of an IM	2018/762 Annex II	NSA	Any action within the supervision regime covered by Regulation 2018/761 Annex I in particular No 4 b) and c), No 5 e) and f) and No 6	It is the full responsibility of the IM to react appropriately to the findings of a NIB regarding its SMS, whether located in the SMS documentation or the practical implementation of the provisions.

Finding/Non-compliance in the area of	Finding should be linked to the relevant clause/section of	Potential addressee	Potential measure	remark
Risk assessment (for changes) as part of a RU/IM's SMS	2013/402	NSA	Any action within the supervision regime covered by Regulation 2018/761 Annex I in particular No 4 b) and c), No 5 e) and f) and No 6	It is the full responsibility of the RU/IM to react appropriately to the findings of a NIB regarding processes of their SMS, whether located in the SMS documentation or the practical implementation of the provisions.
Monitoring of its SMS <sup>12</sup> by RU/IM (ECM for the maintenance system)	1078/2012	NSA	Any action within the supervision regime covered by Regulation 2018/761 Annex I in particular No 4 b) and c), No 5 e) and f) and No 6	It is the full responsibility of the RU/IM to react appropriately to the findings of a NIB regarding processes of their SMS, whether located in the SMS documentation or the practical implementation of the provisions.
Maintenance of vehicles with certified ECM	2019/779 Annex II	ECM certification body		Also, when an ECM is certified, this needs to be properly managed by an RU via its SMS. A recommendation in this area might be necessary as well.

<sup>12</sup> In the context of this Regulation, « monitoring » should be understood as: (a) to check the correct application and the effectiveness of all the processes and procedures in the management system, including the technical, operational and organisational risk control measures; (b) to check the correct application of the management system as a whole, and if the management system achieves the expected outcomes; and (c) to identify and implement appropriate preventive, corrective or both types of measures if any relevant instance of noncompliance to points (a) and (b) is detected.

Finding/Non-compliance in the area of	Finding should be linked to the relevant clause/section of	Potential addressee	Potential measure	remark
Maintenance of vehicles without certified ECM	2018/762 Annex I or Annex II	NSA	Any action within the supervision regime covered by Regulation 2018/761 Annex I in particular No 4 b) and c), No 5 e) and f) and No 6	Where a RU or IM does not need a certified ECM, the relevant processes must be part of the RU's/IM's SMS
	See SMS of a RU or IM			
Maintenance of infrastructure	See SMS of IM			
Technical specifications of any subsystem or constituent	Relevant TSI and or national rule	Member State	To take measures according to Article 11 of Directive 2016/797	
Issuing, renewing, suspending or amending single safety certificates or safety authorisation	Regulation 2016/796 or Directive 2016/798 or acts based on these legal provisions, in particular Regulation 2018/763	NSA	Improve/Review the process regarding ... (reference to the relevant Article /section of Regulation 2018/763)	
		Agency		
Supervision by the NSA	Regulation (EU) 2018/761	NSA	To introduce/improve/review process regarding ... (reference to the relevant Article or section in Annex II of Regulation 2018/761)	

Finding/Non-compliance in the area of	Finding should be linked to the relevant clause/section of	Potential addressee	Potential measure	remark
certification of ECM (or outsourced maintenance functions)	Regulation (EU) 2019/779	ECM certification body	Improve/Review the implementation of responsibilities and/or certification process regarding ... (reference to the relevant Article /section of Regulation 2019/779)	
Railway vehicle authorisation and railway vehicle type authorisation process	Regulation (EU) 2018/545	Agency, NSA, IM, vehicle type authorisation holder	Improve/Review the implementation of responsibilities and/or certification process regarding ... (reference to the relevant Article /section of Regulation 2018/545)	

## 10. Annex 2 - Checklist for safety recommendations

### **Good practice** – example of NIB NO checklist for safety recommendations

- › Have you prepared the safety recommendation on the basis of the procedure ‘Preparation of safety recommendations’?
- › Has the NIB previously issued recommendations in a similar or related area? (Search the recommendations overview in the database)
- › Which similar recommendations did you find? (Enter the numbers of the recommendations)
- › If previously issued, what was the outcome of the follow-up of the recommendations? (Enter, for example, a reference in the database)
- › If previously issued, why is this recommendation necessary?
- › Are you aware of similar recommendations issued internationally? (state which)
- › Is the recommendation based on ascertained disparity between established/desired levels/standards and levels/standards identified and described in the report by the Transport Accident Investigation Board?
- › Does the recommendation describe deficiencies or potential for improvement in a clear, convincing manner?
- › Is the addressee involved, and does the addressee understand the reasons and the problem?
- › Is the recommendation formulated in such a way that they can be understood without having access to the report?
- › Does the recommendation direct attention to the problem area without dictating a solution? (Ref. rules (aviation industry): ‘Any safety recommendations must only specify changes which should be made to prevent new occurrences and the investigating authority should exercise caution with regard to proposing solutions as to how conditions should be corrected or changed.’)
- › Is it considered unlikely that the recommendation may give rise to other safety issues? (If so, it must be clear from the analysis that such discrepancies exist and we must advise that this assessment be undertaken by a third party.)
- › Is the recommendation formulated in such a way as to make it difficult for the addressee to reject them or close on dubious reasons?
- › Is the recommendation correctly addressed?
- › Is the recommendation reasonable in relation to the safety benefits that can be expected?
- › Is the recommendation based on the report’s factual sections, analysis and conclusions?

## 11. Annex 3 - Follow up of safety recommendations

**Good practice** – example of NIB BE follow up of safety recommendations

NIB RECOMMENDATIONS										
PLACE OF THE OCCURENCE <b>Godinne</b>	OCCURENCE DATE 11/05/2012	REPORT NUMBER	REPORT PUBLICATION DATE 06/2013							
Collision between two freight trains										
RECOMMENDATION N° 1	ADRESSEE NSA	EXECUTION BY Infrastructure Manager	RECOMMENDATION TYPE	STATUS FOLLOW-UP NSA <input checked="" type="checkbox"/> RU <input type="checkbox"/> IM <input type="checkbox"/>						
<b>ANALYSE</b>										
<p>Following the information collected on site and the study of the recording tapes of the trains impacted in the accident, the Investigation Body urgently contacted the infrastructure manager: it appeared that a fault was found in the signaling. Immediate measures are taken by the infrastructure manager to check the various elements of signal control on the part of the railway network.</p> <p>The accident has highlighted that the risk of an over voltage by the rolling stock had not been identified by the infrastructure manager.</p>										
<b>RECOMMENDATION</b>										
<p>The Safety Authority should ensure that the infrastructure manager</p> <ul style="list-style-type: none"> <li>• carries out an evaluation to verify the degree to which the identified risk, over voltage caused by the rolling stock, has an effect on the risk analysis carried out for the signalling present on the network and</li> <li>• puts in place a process ensuring that this risk is taken into consideration in all future risk analysis.</li> </ul>										
<table border="1"> <thead> <tr> <th>COMMENT &amp; ACTION NSA</th> <th>ACTION RU</th> <th>ACTION IM</th> </tr> </thead> <tbody> <tr> <td colspan="3"> <p>A galvanic isolation module has been developed. It prevents the injection into sensitive circuits of potential over voltage from the rolling stock. It should be noted that modern installations with logic programming (EBP/PLP) are already protected against this problem with additional control circuits.</p> <p>The analysis and safety dossiers drawn up in the section take into account the over voltage and electrical load in accordance with the international standards in this sector. The roll-out has begun.</p> </td> </tr> </tbody> </table>					COMMENT & ACTION NSA	ACTION RU	ACTION IM	<p>A galvanic isolation module has been developed. It prevents the injection into sensitive circuits of potential over voltage from the rolling stock. It should be noted that modern installations with logic programming (EBP/PLP) are already protected against this problem with additional control circuits.</p> <p>The analysis and safety dossiers drawn up in the section take into account the over voltage and electrical load in accordance with the international standards in this sector. The roll-out has begun.</p>		
COMMENT & ACTION NSA	ACTION RU	ACTION IM								
<p>A galvanic isolation module has been developed. It prevents the injection into sensitive circuits of potential over voltage from the rolling stock. It should be noted that modern installations with logic programming (EBP/PLP) are already protected against this problem with additional control circuits.</p> <p>The analysis and safety dossiers drawn up in the section take into account the over voltage and electrical load in accordance with the international standards in this sector. The roll-out has begun.</p>										

Figure 1: Example of the follow up of safety recommendation from the NIB in Belgium.

## 12. Annex 4 - Example on urgent safety recommendation

### **NOTIFICATION OF URGENT SAFETY RECOMMENDATION** (Example adapted from NIB PT.)

#### **FACTS WHICH SUPPORT THE RECOMMENDATION**

In the determination of the immediate facts of the accident, it was found that maintenance vehicle VCC 105 unduly passed at danger signal S5 at Soure station.

At the moment, the reasons that led to this SPAD are not yet clear from the investigation. However, the analysis of the history of occurrences indicates that, in the period between 2010 and 2015, the relative frequency of SPADs with this type of vehicles was twenty times higher than with other trains.

The NSA has not yet implemented all recommendations issued by the NIB in its report F\_2018 03, namely recommendation 2018/16 which stated:

“The NSA is recommended that, within a period considered acceptable by that Authority, the IM ensures that all vehicles operating on lines open to traffic operate under equivalent safety conditions with regard to the risk of SPAD, reevaluating the risk corresponding to the absence of an ATP system in maintenance vehicles, taking into account the history of SPADs with this type of vehicles, and reinforcing the existing risk control measures so that it is at least equivalent to that permitted for RUs’ trains”.

The accident that occurred three days ago gives evidence that the risk of SPAD in relation to maintenance vehicle is not adequately controlled.

Not being equipped with ATP and running on lines open to traffic, the maintenance vehicles operate according to the practice of using a second-man, which aims to make up for any driver errors, as was the practice before the implementation of ATP and Cab-ground radio on the rail network, or when the ATP was out of order.

However, it is evident that the operation of trains not equipped with ATP and the lower proficiency of maintenance vehicle drivers, particularly with regard to route knowledge (a relevant factor when considering the increasing complexity of the infrastructure), is clearly outside the assumptions that led to the modification of the operating rules and procedures, as these vehicles are not equipped with the aforementioned technological protection system.

#### **URGENT SAFETY RECOMMENDATION**

In view of the facts and the above, the NIB considers that rule ICS 203-14 - Conditions for the Operation of Maintenance Vehicles on the National Railway Network, a national rule under the responsibility of the NSA, should be reassessed, while systemic actions are not effectively implemented, such as the installation of an ATP system in the maintenance vehicles or track devices combined with signalling that prevent the improper entry of any vehicles on the through lines.

Thus, the NIB makes an urgent safety recommendation to the National Railway Safety Authority, to take the necessary actions as soon as possible to:

***Ensure that operational procedures are established with additional requirements that reduce the existing risk of SPAD by maintenance vehicles. Consideration should be given, but not limited, to measures such as:***

- The prohibition of autonomous operation of maintenance vehicles on lines open for traffic;***
- The determination that maintenance vehicles can only start their journey to a free block after the departure order given by a signaller, either in person or remotely from a centralized post, duly registered by electronic or handwritten means.***

## 13. References

This guidance is a part of the framework “Guidance for accident investigation in terms of Articles no. 20 – 26 of Directive 2016/798 (EU)”.