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| NIB Austria – Annual report 2017  (pursuant to Article 23(3) of Directive 2004/49/EC) | | | |
|  | | | Austrian Safety Investigation Authority  Trauzlgasse 1 1210 Vienna https://www.bmvit.gv.at/sub |
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List of abbreviations

|  |  |
| --- | --- |
| Para. | Paragraph |
| ANSF | Italian Railway Safety Agency |
| GCU | Contract for the use of rail freight wagons |
| Bf | Station |
| BMI | Federal Ministry of the Interior |
| BMJ | Federal Ministry of Justice |
| BMVIT, bmvit | Federal Ministry of Transport, Innovation and Technology |
| Bst | Operation point |
| CSI | Safety indicators |
| DB | Instruction |
| DV | Service regulations |
| EC | European Community |
| EisbBBV | Railway Construction and Operation Regulation |
| EisbG 1957 | Railway Act 1957 |
| EisbKrV 2012 | Railway Crossing Regulation 2012 |
| EK | Railway crossing |
| EKSA | Railway crossing safety equipment |
| EN | European standard |
| ERA | European Railway Agency |
| ERAIL | European database for rail traffic incidents |
| ES | Entry signal |
| EU | European Union |
| EVU | Railway undertaking |
| Hbf | Central station |
| IM | Infrastructure Manager |
| icw | in conjunction with |
| NSA | National Safety Authority |
| ÖBB | Austrian Federal Railways |
| QM system | Quality Management system |
| RCA | Rail Cargo Austria (EVU) |
| RIC | Agreement on the exchange and use of passenger cars in international rail traffic |
| RU | Railway Undertaking |
| RJ | Railjet |
| SES | Immediate action limit |
| StLB | Styrian Provincial Railways |
| StVO | Road traffic regulations |
| SUB | Federal Safety Investigation Authority |
| TF | Task Force |
| Tfz | Traction unit |
| UIC | International Union of Railways |
| UUG 2005 | Accident Investigation Act |
| Vstu | Unmanned stop |
| Z | Train |
| ZSB | Additional provisions for signalling and operating instructions |

Introduction

Pursuant to the international standard for accident analysis and on the basis of the concepts and strategies of the traffic safety policy of the European Union and the Community obligations based thereon, accidents and incidents must be rigorously investigated by a permanently established independent body in order to learn from mistakes, avoid repeated incidents and thereby contribute to improving traffic safety.

In Austria, pursuant to the Accident Investigation Act (Unfalluntersuchungsgesetz; UUG) 2005, this duty is performed by the Federal Safety Investigation Authority (Sicherheitsuntersuchungsstelle des Bundes; SUB), a department of the Federal Ministry of Transport, Innovation and Technology (Bundesministerium für Verkehr, Innovation und Technologie; BMVIT).

Pursuant to Article 23(3) of Directive 2004/49/EC, the ‘Railway Safety Directive’, the SUB has to draw up a detailed report of its activities in the respectively preceding year and publish this by no later than 30 September of each year.

This safety report for 2017 contains the key facts and figures regarding the SUB’s investigation activities in the rail sector in 2017.

Further information can be obtained from SUB staff and the BMVIT website ([https://www.bmvit.gv.at](https://www.bmvit.gv.at/)/sub).

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Summary

General matters

Pursuant to Article 23(3) of Directive 2004/49/EC, the ‘Railway Safety Directive’, this annual report is based on the figures and data reported to the SUB concerning events that must be reported which occurred in the SUB Rail Division in the reporting year 2017.

The central task of the SUB is investigating accidents and incidents using a qualified investigation procedure, determining the possible causes and drawing up safety recommendations as proposals for improving traffic safety.

The investigation is **not intended to settle questions of culpability or liability**; investigation reports may **not make any findings** in this regard.

Overview

|  |  |  |
| --- | --- | --- |
|  | Rail | |
| 2016 | 2017 |
| Reports received   * of which accidents * of which incidents * other | 2 057  1 191  866 | 2 496  968  1 160  368 |
| Total investigations |  | 15 |
| Preliminary procedures   * of which SI initiated | 32  7 | -  - |
| Safety recommendations | 20 | 13 |

Trends

**SUB Rail Division**

In 2017, the SUB Rail Division received a total of 2 496 reports. Of these, 968 reports were classified by the SUB as accidents, 1 160 as incidents and 368 as other events (no reporting obligation pursuant to the Railway Reporting Regulation (MeldeVO-Eisb) 2006).

In 2017, safety investigations were initiated in 15 cases. A detailed overview of the investigations initiated can be found in Chapter 11.

Pursuant to Article 19.1 of Directive 2004/49/EC, a total of 4 events were to be regarded as subject to the investigation obligation in 2017. In 11 further cases, a safety investigation was initiated pursuant to Article 19.2, as those events were considered to be relevant to the safety of the railway system.

Compared to the 2016 reference period, the total number of events reported has increased. It must be noted in this regard that the number of accidents reported has dropped. With regard to incidents, significantly more events were reported to the SUB than in the 2016 reference period.

Regardless thereof, it must be noted that the number of events subject to the investigation obligation is generally low. In any case, this development is to be attributed to a recognisable improvement in the level of safety in the rail traffic sector.

Achievement of objectives

The findings obtained from the safety investigations conducted and the measures derived therefrom once more represented an important contribution to improving traffic safety in the individual traffic sectors in 2017.

Vienna, 28 September 2018

Austrian Safety Investigation Authority

[Sicherheitsuntersuchungsstelle des Bundes]

# Structure, function, personnel, independence

The Federal Safety Investigation Authority (SUB) has a multi-modal structure and comprises the rail, shipping, cableway and civil aviation sectors, which also makes it possible to achieve synergy and saving effects. These advantages are achieved, for example, in the rail, shipping and cableway sectors via cross-functional aspects in accident analysis and via a shared reporting office and a central 24-hour on-call service.

In accordance with the requirements of EU and Austrian law, the SUB is functionally and organisationally independent of any authorities and parties, public and private bodies, whose interests might conflict with the tasks of the SUB.

The SUB has been provided with sufficient means to perform its tasks independently and is able to either conduct a comprehensive safety investigation of events itself, or to oversee a safety investigation.

As of 31 December 2017, the rail sector has the following personnel:

* 1 SUB head
* 1 division head
* 4 investigators (2 of whom are also responsible for the shipping and cableway sectors)
* 3 trainee investigators
* 3 administrative employees (back office, database competence centre, assistance)

Pursuant to Section 3(3) UUG 2005, the investigators are not bound by any instructions from bodies outside the SUB when carrying out safety investigations.

# Legal bases

The international, EU and national regulations cited in the safety report each relate to the current version.

## SUB as a whole

* Accident Investigation Act - UUG 2005, Federal Law Gazette (BGBl.) I No 123/2005 in the current version.

## SUB Rail Sector

* Directive 2004/49/EC, ‘Railway Safety Directive’, OJ No L 164 of 30 April 2004
* Directive (EU) No 2016/798, ‘Railway Safety Directive’, OJ No L 138 of 26 May 2016  
  *Note: This directive replaces Directive 2004/49/EC and is to be transposed into national law by 16 June 2019*
* Railway Reporting Regulation - MeldeVO-Eisb 2006, BGBl. II No 279/2006
* Railway Act - EisbG 1957, BGBl. No 60/1957
* Railway Regulation 2003, BGBl. II No 209/2003
* Railway Construction and Operation Regulation - EisbBBV, BGBl. II No 398/2008

# Tasks

The central tasks of the SUB include:

* investigating accidents and incidents using a qualified investigation procedure,
* determining the possible causes and
* where necessary, drawing up safety recommendations as proposals for improving traffic safety.

The investigation is expressly not intended to settle questions of culpability or liability; investigation reports may not make any findings in this regard.

# Responsibilities

Pursuant to Section 5(1)(1) UUG 2005, railways include the operation of main and secondary lines, branch lines and tramway lines on which rail vehicles move exclusively over their own track (e.g. the underground in the federal capital Vienna), including the operation of rail vehicles on these lines in accordance with the provisions of Sections 4, 5 and 7 EisbG 1957.

For the purposes of statistical presentation, a distinction is made between:

* All lines
* Networked lines
* Non-networked lines
* Branch lines
* Underground lines

# Fundamentals of the safety investigation

## General matters

Pursuant to Section 5 UUG 2005, events include accidents and serious accidents and incidents and serious incidents, and causes include actions, omissions, occurrences or any combination of those factors which led to an event.

## Reporting

In accordance with the provisions of Section 19c EisbG 1957, the railway undertaking is obliged to immediately notify the SUB of any accidents and incidents that occur during the operation of a public railway or branch line. The scope and form of the reports by the railway undertakings are to be determined by regulation.

The scope and form of the reporting of accidents and incidents occurring during railway operations are stipulated in the current MeldeVO-Eisb 2006.

The SUB itself also has an obligation to report to the European Railway Agency (ERA) in cases where a safety investigation was initiated in respect of an event.

## Initiation of a safety investigation

The procedure of a safety investigation generally begins with the reporting of the event; it is, however, decisive that not every report warrants a comprehensive investigation procedure. Instead, the nature and scope of a safety investigation have to be guided by the severity of the event and particularly by the new findings that are expected to be obtained in respect of improving traffic safety.

Pursuant to Section 9 UUG 2005, the SUB assigns to each individual safety investigation an investigator who assumes responsibility for organising, conducting and supervising the respective safety investigation.

Pursuant to Section 9 UUG 2005, all serious accidents must be investigated. Furthermore, a safety investigation of events that are not serious accidents is always to be conducted when a safety investigation is expected to yield new findings for preventing future events.

## Safety investigation

Every investigation procedure is to be conducted without delay, and in a simple and expedient manner, with it having to be taken into account that this procedure is not public and the investigators have a duty of confidentiality. The scope of authority of the investigators in relation to conducting a safety investigation is stipulated in Section 11 UUG 2005.

## Investigation report

Every safety investigation is to be concluded with an investigation report which must be subjected to a consultation procedure prior to publication. The investigation report must be guided in its content by the nature and severity of the event, referring to the exclusive purpose of a safety investigation. The investigation report must contain, inter alia, details of the event, information on the means of transport involved, the circumstances that led to the event, the investigations conducted and the conclusions thereof as well as the determination of the possible causes and, where appropriate, safety recommendations.

The investigation reports are **not intended to settle legal questions** and in particular **may not contain any findings on questions of culpability and liability**.

All investigation reports are published on the BMVIT website ([https://www.bmvit.gv.at](https://www.bmvit.gv.at/)/sub).

## Safety recommendations

It is intended for the result of the investigation to be used, where appropriate, to draw up safety recommendations as proposals for improving traffic safety, that are to be sent to those bodies which can implement them in appropriate measures. Whether and to what extent the safety recommendations made are implemented is the responsibility of the bodies specifically affected and targeted thereby.

For the rail sector, Directive 2004/49/EC stipulates that the SUB is at least annually informed of any measures taken or planned in response to the safety recommendations made.

# Cooperation (authorities and other bodies)

## BMVIT

A comprehensive exchange of opinions and information with the competent specialist departments in the BMVIT takes place at regular intervals and in relevant cases.

## Judicial authority (prosecutor’s office)

The cooperation with the judicial authority (prosecutor’s office) takes place on the basis of agreements that were put into effect by decree of the Federal Ministry of Justice of 7 August 2012. When investigating the facts of the case, it is ensured that both the relevant prosecutor and the investigator assigned by the SUB can perform their legally provided task without restriction on the basis of a mutual cooperation and consideration obligation. The securing and safekeeping of evidence as well as possible use of items of evidence for further investigations likewise take place in accordance with the agreement by mutual consultation.

## Safety authorities and executive bodies

If necessary, the investigator assigned by the SUB is supported by the safety authorities and executive bodies when investigating the facts of the case, in particular at the site of the accident. In the case of major damage events, the cooperation is regulated in the ‘Directive for identifying disaster victims after major damage events (DVI - Disaster Victim Identification)’ issued by the Federal Ministry of the Interior and in the manual published in relation thereto (DVI manual).

## Undertakings

For the purpose of investigating the facts of the case, the investigator assigned by the SUB is to be supported by the undertakings involved in the event, particularly through the provision of the data required for the investigation and of relevant documents.

## Experts

Certain parts of investigations cannot be conducted by the SUB using its own resources. These specifically include investigations of components or materials that require particular instruments or devices, or standardised measurement and investigation procedures, such as, for example, the metallographic investigation of components by means of scanning electron microscope.

The SUB therefore works together with experts (expert bureaus, technical academies, universities), with specialist reports being ordered if needed for the investigation.

# International relations

## NIB network

The SUB Rail Division represents Austria in the network of European safety and investigation bodies (NIB network) at the ERA.

Aside from a comprehensive exchange of opinions and information, the tasks of the NIB network are in particular the development of methods for uniform Europe-wide investigation of events in consideration of technical and scientific progress. Specific tasks are handled in specially established task forces. As a rule, three meetings of the NIB network take place per calendar year.

## Task forces of the NIB network

The SUB Rail Division also represents Austria in the following task forces established via the NIB network at the ERA:

### PEER REVIEW TF

In accordance with the provisions of Article 22(7) of Regulation (EU) 2016/796 (revised version of Directive 2004/49/EC), the European safety and accident investigation bodies are required to conduct an active exchange of views and experience. The European safety and accident investigation bodies also have to develop a programme for mutual review (peer review). This programme is intended to monitor the efficiency and independence of the European safety and accident investigation bodies.

The PEER REVIEW TF was created for the purpose of developing this programme. Three meetings per calendar year are planned. The work of the TF is planned to be concluded for 2018; the first mutual reviews based on this programme should begin in 2018.

## Cross-border exchange of information

There is a constant exchange of views and information between the European safety and accident investigation bodies. Furthermore, in the SUB Rail Division, there are regular meetings of European safety and accident investigation bodies (e.g. with Germany, Switzerland, the Czech Republic, Hungary, Luxembourg and Estonia).

## Cross-border safety investigation

Cross-border safety investigations in the SUB Rail Division take place with cooperation between the safety and accident investigation bodies of the states concerned. The respective safety and accident investigation body of the other state is either invited to the on-site investigation as an observer or conducts investigations into the event in question in its own state and is available for providing information.

# Statistics

## National database

The SUB Rail Division has a database in which all reported events are recorded. The datasets contained in the database make it possible to conduct relevant evaluations according to different criteria at any time.

In principle, every reported event is only assigned to a single category (main event) in order to avoid duplicate registration. Consequential events causally related to a main event or events as causes can be shown in the entry fields ‘Consequences’ and ‘Cause’ and queried accordingly.

An exact definition of what data should ultimately be shown in the query is required for each evaluation. For example, a query for ‘Signals passed at danger’ events would only show events which were entered as main events in the ‘Event’ field. It is, however, possible that the passing of a signal at danger is only recorded as a cause for the event concerned.

|  |  |  |
| --- | --- | --- |
| **Main event** | **Consequential events** | **Cause** |
| Collision of a train with another train | Train derailment | Unauthorised passing of signal |
| Vehicle fire |
| Hazardous goods |

The work on the development and implementation of the planned new database had to be temporarily suspended until certain issues related to the technical implementation are resolved (incorporation into the hardware and software landscape at the BMVIT). It is planned to resolve these issues in the course of 2017.

From 2017, there will be a fundamental change in the classification of incoming reports of events. This means that every incoming report of an event - regardless of the evaluation already given by the reporting party in the incoming report - **always** comprises an incident and is classified as such. Independently of the classification as an incident, it is to be checked whether an additional classification as an accident is required. Furthermore, the source is also statistically recorded for each incoming report.

## ERAIL database

The database which began operation in mid-2012 is used for the obligatory Europe-wide recording of all events investigated by the European safety and accident investigation bodies in the SUB Rail Division. The fundamental concept of the ERAIL database is based on the ECCAIRS database which has already existed for several years for recording events in the civil aviation sector.

In the ERAIL database, criteria for queries can be set individually, and statistical evaluations can be conducted.

The further development of the ERAIL database was temporarily suspended at ERA level. The currently planned further working steps include, inter alia, a comprehensive restructuring of the database.

## Definition of ‘accident / serious accident / significant accident’

Pursuant to Article 3 of Directive 2004/49/EC in conjunction with the provisions of Section 5 UUG 2005, every unwanted or unintended sudden event with consequences has to be considered an accident. Accidents are in particular divided into collisions, derailments and level-crossing accidents. Serious accidents are defined as train collisions or derailments of trains, resulting in the death of at least one person or serious injuries to five or more persons or extensive damage to rolling stock, the infrastructure or the environment, and any other similar accidents with an obvious impact on railway safety regulation or the management of safety. Extensive damage means damage that can immediately be assessed by the safety and accident investigation body to cost at least EUR 2 million in total.

For serious accidents, there is always an obligation to conduct a safety investigation, in accordance with the provisions of Article 19(1) of Directive 2004/49/EC.

In the annex to Directive 2009/149/EC, ‘Common Safety Indicators and common methods to calculate accident costs’, the term ‘significant accident’ is used. A significant accident is any accident involving at least one rail vehicle in motion, resulting in at least one killed or seriously injured person, or in significant damage to stock, track, other installations or the environment, or extensive disruptions to traffic. Accidents in workshops, warehouses and depots are excluded. Significant damage to stock, track, other installations or the environment is defined as damage that is equivalent to EUR 150 000 or more.

### Definition of ‘train collision’

The following definitions apply to collisions involving trains:

A ‘**collision of a train with a railcar**’ is a collision of the front of a train with the front or end of another train, another railcar or a shunting unit (shunt) or a side collision between a part of a train and a part of another train, another railcar or a shunting unit (shunt).

(Cf. Appendix of Directive 2004/49/EC)

A ‘**collision of a train with an obstacle within the clearance gauge**’ is a collision between a part of a train and objects fixed or temporarily present on or near the track (except at level crossings if lost by a crossing vehicle or user), including collisions with catenaries.

(Cf. Appendix of Directive 2004/49/EC)

### Definition of ‘train derailment’

‘**Train derailments**’ are occurrences in which at least one wheel of a train leaves the rails. (Cf. Appendix of Directive 2004/49/EC)

### Definition of ‘accidents at railway crossings/level crossings’

‘Accidents at railway crossings/level crossings’ are occurrences in the defined crossing area between the rails and the road involving at least one railcar and one or more crossing vehicles, other crossing users such as pedestrians or other objects temporarily present on or near the track if lost by a crossing vehicle/user.

(Cf. Appendix of Directive 2004/49/EC)

# Quality management system (QM system)

With the introduction of a certified QM system at the SUB, it is ensured that a standardisation of the process sequences of all employees enables the activities to be conducted to the same standards, without duplications of work or unnecessary additional effort and costs.

Defined quality indicators make it possible to identify weak points which affect the entire system and to define corresponding improvements.

An important part of the QM system in the SUB Rail Division is, inter alia, the recording of the costs of a safety investigation. The ‘cost and resource planning’ tool is used to determine the actual costs of a safety investigation according to a standardised procedure and at the same time provides the option of conducting target/performance comparisons.



# Online presence of the SUB

In order to ensure a uniform online presence of the BMVIT, it was decided that the SUB information previously published on the website of the Federal Institute for Transport should be integrated into the website of the BMVIT.

The data published by the SUB are available on the BMVIT website at the following address:

<https://www.bmvit.gv.at/verkehr/sub/index.html>

# Activities in 2017

## Reports received

|  |  |  |
| --- | --- | --- |
|  | **2016** | **2017** |
| **Total reports received** | 2 057 | 2 496 |
| * **of which accidents** | 1 191 | 968 |
| * **of which incidents** | 866 | 1 160 |
| * **of which no events pursuant to MeldeVO-Eisb 2006** | - | 368 |

## Total investigations

|  |  |  |
| --- | --- | --- |
|  | **2016** | **2017** |
| **On-site investigations** | - | 14 |
| **Off-site investigations/Further investigations** | - | 21 |
| **Preliminary procedures** | 32 | - |
| * **of which safety investigations initiated** | 7 | 15 |

## Safety investigations initiated

|  |  |  |
| --- | --- | --- |
| **Date** | **Investigation** | **Legal basis** |
| **08/01/2017** | Collision of Z 4472 with car on railway crossing between Liezen station and Wörschach-Schwefelbad stop | Article 19.2 |
| **12/01/2017**  **03/03/2017** | Injury to persons caused by rail vehicles at Kirchstetten station | Article 19.2 |
| **21/01/2017** | Collision of Z 8436 with service vehicle on railway crossing between Graz Webling stop and Graz Wetzelsdorf stop | Article 19.2 |
| **09/03/2017** | Rolling-away of a group of wagons from Bad Vöslau station | Article 19.2 |
| **17/03/2017** | Failure to secure a railway crossing between Thalheim-Pöls station and Unzmarkt station | Article 19.2 |
| **20/03/2017** | Collision of Z 29795 with Z 47001 at Vienna Süßenbrunn West station | Article 19.2 |
| **15/04/2017** | Collision of Z 631 with shunting rolling stock at Vienna Meidling station | Article 19.1 |
| **18/04/2017** | Derailments at Schwechat operation point due to stuck brake shoe | Article 19.2 |
| **20/04/2017** | Collision of Z 3247 with HGV on railway crossing at Wels station | Article 19.2 |
| **31/05/2017** | Collision of Z 3206 with car on railway crossing between Pettenbach station and Steinachbrücke station | Article 19.2 |
| **23/08/2017** | Collision of Z 97209 with train 61004 at Linz Verschiebe Ost station | Article 19.1 |
| **04/10/2017** | Collision of Z 41820 with a pram at Puch bei Hallein stop | Article 19.2 |
| **30/10/2017** | Collision of Z 5968 with rolled-away passenger train at Haiding station | Article 19.2 |
| **22/12/2017** | Train collision of Z 21093 with Z 2845 at Kritzendorf station | Article 19.1 |
| **22/12/2017** | Derailment of Z 43144 between the Gries stop and St. Jodok | Article 19.1 |
| \* pursuant to Directive 2004/49/EC, ‘Railway Safety Directive’ | | |

## 

## Safety recommendations (made in 2017)

See Annex 1.

# Event statistics 2017

## Reported events

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Total events** | **Number** | | | | |
| **All lines** | **Networked lines** | **Non-networked lines** | **Branch lines** | **Underground lines** |
| **Total reports** | 2 496 | 2 244 | 28 | 133 | 91 |
| * **of which accidents** | 968 | 808 | 23 | 122 | 15 |
| * **of which incidents** | 1 160 | 1 100 | 4 | 7 | 49 |
| * **other** | 368 | 336 | 1 | 4 | 27 |

## Reported accidents by type of accident

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Number** | | | | |
|  | **All lines** | **Networked lines** | **Non-networked lines** | **Branch lines** | **Underground lines** |
| **Collision with rail vehicle** | 6 | 6 | - | - | - |
| **Collision of rail vehicle with something else (objects)** | 595 | 536 | 1 | 53 | 5 |
| **Train derailment** | 22 | 20 | 2 | - | - |
| **Derailment during shunting/auxiliary/other movement** | 76 | 76 | - | - | - |
| **Accidents on railway crossings** | 125 | 96 | 19 | 10 | - |
| **Cases of damage when carrying hazardous goods** | 19 | 16 | - | 3 | - |
| **Injury/death of persons caused by rail vehicles** | 39 | 32 | - | 1 | 6 |
| **Injury/death of persons caused by other accidents** | 18 | 13 | - | 2 | 3 |
| **Vehicle fires/explosions** | 20 | 19 | - | - | 1 |

## Reported serious accidents by type of accident (Directive 2004/49/EC, UUG 2005)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Number** | | | | |
|  | **All lines** | **Networked lines** | **Non-networked lines** | **Branch lines** | **Underground lines** |
| **Collision with rail vehicle** | 1 | 1 | - | - | - |
| **Collision of rail vehicle with something else (objects)** | 6 | 6 | - | - | - |
| **Train derailment** | 3 | 3 | - | - | - |
| **Derailment during shunting/auxiliary movement** | - | - | - | - | - |
| **Accidents on railway crossings** | 8 | 7 | 1 | - | - |
| **Injury/death of persons caused by rail vehicles** | 7 | 7 | - | - | - |
| **Injury/death of persons caused by other accidents** | - | - | - | - | - |

## Reported significant accidents by type of accident (Directive 2009/149/EC, CSI)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Total events** | **Number** | | | | |
| **All lines** | **Networked lines** | **Non-networked lines** | **Branch lines** | **Underground lines** |
| **Collision with rail vehicle** | 4 | 4 | - | - | - |
| **Collision of rail vehicle with objects** | 7 | 6 | - | - | 1 |
| **Train derailment** | 5 | 5 | - | - | - |
| **Derailment during shunting/auxiliary movement** | 1 | - | 1 | - | - |
| **Accidents on railway crossings** | 28 | 26 | 1 | 1 | - |
| **Injury/death of persons caused by rail vehicles** | 24 | 19 | - | - | 5 |
| **Injury/death of persons caused by other accidents** | 5 | 4 | - | 1 | - |
| **Vehicle fires/explosions** | - | - | - | - | - |
| **Other accidents** | - | - | - | - | - |

## Reported incidents by type of incident

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Total events** | **Number** | | | | |
| **All lines** | **Networked lines** | **Non-networked lines** | **Branch lines** | **Underground lines** |
| **Vehicle - Axle fracture** | - | - | - | - | - |
| **Vehicle - Wheel fracture** | - | - | - | - | - |
| **Vehicle - Brake** | 245 | 240 | - | - | 5 |
| **Vehicle - Train separation** | 68 | 68 | - | - | - |
| **Vehicle - Loading issue** | 170 | 164 | 1 | 5 | - |
| **Vehicle - Hazardous goods issue** | 22 | 21 | - | 1 | - |
| **Vehicle - Other** | 127 | 114 | 1 | 4 | 8 |
| **Infrastructure - Track distortion** | 11 | 8 | - | 3 | - |
| **Infrastructure - Broken rail** | 3 | 1 | - | 1 | 1 |
| **Infrastructure - Other** | 98 | 87 | - | 5 | 6 |
| **Operation - Signal crossed with danger point** | 51 | 51 | - | - | - |
| **Operation - Signal crossed without danger point** | 108 | 108 | - | - | - |
| **Operation - Movement without requirement** | 63 | 52 | 1 | 10 | - |
| **Operation - Route** | 44 | 30 | 1 | 12 | 1 |
| **Operation - Rolled-away vehicle** | 27 | 21 | - | 6 | - |
| **Operation - Danger to persons/movements** | 20 | 18 | 1 | 1 | - |
| **Operation - Other** | 162 | 114 | - | 46 | 2 |
| **Administration - Other** | 2 | 2 | - | - | - |
| **Railway crossing - Irregularity** | 184 | 154 | 19 | 11 | - |
| **Other - Violation of railway regulations** | 128 | 126 | - | - | 2 |
| **Other - Trespassing** | 46 | 26 | 1 | - | 19 |
| **Other - Power incident** | 19 | 19 | - | - | - |
| **Other - Suicide/suicide attempt** | 88 | 76 | 1 | - | 11 |
| **Other - Other** | 466 | 428 | 1 | 28 | 9 |

## Persons involved in an accident (excluding suicide/suicide attempt)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Total events** | **Number** | | | | |
| **All lines** | **Networked lines** | **Non-networked lines** | **Branch lines** | **Underground lines** |
| **Persons killed** | 25 | 24 | 1 | - | - |
| **Persons with serious injuries** | 57 | 45 | 1 | 2 | 9 |
| **Persons with minor injuries** | 98 | 77 | 13 | 5 | 3 |

## Persons killed by type of accident (excluding suicide)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Total events** | **Number** | | | | |
| **All lines** | **Networked lines** | **Non-networked lines** | **Branch lines** | **Underground lines** |
| **Collision with rail vehicle** | - | - | - | - | - |
| **Collision with object** | 5 | 5 | - | - | - |
| **Train derailment** | - | - | - | - | - |
| **Derailment during shunting/auxiliary movement** | - | - | - | - | - |
| **Accidents on railway crossings** | 8 | 7 | 1 | - | - |
| **Death of persons caused by rail vehicles** | 7 | 7 | - | - | - |
| **Death of persons caused by other accidents** | - | - | - | - | - |
| **Other** | - | - | - | - | - |

## Persons with serious injuries by type of accident (excluding suicide attempt)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Total events** | **Number** | | | | |
| **All lines** | **Networked lines** | **Non-networked lines** | **Branch lines** | **Underground lines** |
| **Collision with rail vehicle** | 5 | 5 | - | - | - |
| **Collision with object** | 2 | 1 | - | - | 1 |
| **Train derailment** | 6 | 6 | - | - | - |
| **Derailment during shunting/auxiliary movement** | 1 | - | 1 | - | - |
| **Accidents on railway crossings** | 20 | 19 | - | 1 | - |
| **Persons with serious injuries caused by rail vehicles** | 19 | 12 | - | - | 7 |
| **Persons with serious injuries caused by other accidents** | 7 | 6 | - | 1 | - |
| **Other** | 5 | 5 | - | - | - |

## Persons with minor injuries by type of accident (excluding suicide attempt)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Total events** | **Number** | | | | |
| **All lines** | **Networked lines** | **Non-networked lines** | **Branch lines** | **Underground lines** |
| **Collision with rail vehicle** | 12 | 12 | - | - | - |
| **Collision with object** | 11 | 11 | - | - | - |
| **Train derailment** | 29 | 20 | 9 | - | - |
| **Derailment during shunting/auxiliary movement** | - | - | - | - | - |
| **Accidents on railway crossings** | 43 | 31 | 9 | 3 | - |
| **Persons with minor injuries caused by rail vehicles** | 14 | 12 | - | 1 | 1 |
| **Persons with minor injuries caused by other accidents** | 10 | 7 | - | 1 | 2 |
| **Other** | 13 | 13 | - | - | - |

## Persons killed by categories (excluding suicide)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Total events** | **Number** | | | | |
| **All lines** | **Networked lines** | **Non-networked lines** | **Branch lines** | **Underground lines** |
| **Passengers** | - | - | - | - | - |
| **Employees** | - | - | - | - | - |
| **Users of railway crossings** | 9 | 8 | 1 | - | - |
| **Other persons** | 5 | 5 | - | - | - |
| **Unauthorised persons** | 11 | 11 | - | - | - |

## Persons with serious injuries by categories (excluding suicide attempt)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Total events** | **Number** | | | | |
| **All lines** | **Networked lines** | **Non-networked lines** | **Branch lines** | **Underground lines** |
| **Passengers** | 12 | 11 | - | - | 1 |
| **Employees** | 9 | 7 | 1 | 1 | - |
| **Users of railway crossings** | 21 | 20 | - | 1 | - |
| **Other persons** | 8 | 2 | - | - | 6 |
| **Unauthorised persons** | 7 | 5 | - | - | 2 |

## Persons with minor injuries by categories (excluding suicide attempt)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Total events** | **Number** | | | | |
| **All lines** | **Networked lines** | **Non-networked lines** | **Branch lines** | **Underground lines** |
| **Passengers** | 34 | 29 | 3 | - | 2 |
| **Employees** | 26 | 20 | 5 | 1 | - |
| **Users of railway crossings** | 34 | 25 | 5 | 4 | - |
| **Other persons** | 2 | 1 | - | - | 1 |
| **Unauthorised persons** | 2 | 2 | - | - | - |

## Suicides and suicide attempts

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Total events** | **Number** | | | | |
| **All lines** | **Networked lines** | **Non-networked lines** | **Branch lines** | **Underground lines** |
| **Killed as a result of suicide** | 75 | 69 | 1 | - | 5 |
| **Suicide attempt – persons injured** | 11 | 6 | - | - | 5 |
| **Suicide attempt – without injury** | 3 | 2 | - | - | 1 |

## Accidents on railway crossings

|  |  |
| --- | --- |
|  | **Number** |
| **Total accidents** | 120 |
| * **of which railway crossing with technical protection (traffic lights, barrier system)** | 55 |
| * **of which railway crossing with non-technical protection (visual, acoustic signals)** | 65 |

## Accidents on railway crossings - Persons involved in an accident

|  |  |
| --- | --- |
|  | **Number** |
| **Persons killed (excluding suicide)** | 8 |
| **Persons with serious injuries (excluding suicide attempt)** | 20 |
| **Persons with minor injuries (excluding suicide attempt)** | 43 |

## Accidents on railway crossings – Users

|  |  |
| --- | --- |
|  | **Number** |
| **Cars** | 95 |
| **HGVs** | 15 |
| **Buses** | - |
| **Utility/agricultural vehicles** | 3 |
| **Other motor vehicles** | - |
| **Bicycles** | 4 |
| **Pedestrians** | 6 |
| **Other** | - |

## Number of railway crossings

|  |  |
| --- | --- |
|  | **Number** |
| **Total (excluding non-public railway crossings)** | 3 891 |
| * **of which with technical protection (traffic lights, barrier system)** | 1 966 |
| * **of which with non-technical protection (visual, acoustic signals)** | 1 919 |
| **Non-public railway crossings** | 1 484 |

# Safety recommendations

The order of the safety recommendations is based on the publication date, and not on the date of the event.

| **Date of event** | **Event** |
| --- | --- |
| **12/01/2017** | **Person injured by Z 1612 at Kirchstetten station**  **A-2017/001 (safety recommendation pursuant to Section 16(2) UUG 2005)**  It is recommended that the track-level platform entrances at km 43.517 and km 43.559 in Kirchstetten station be secured by barriers or other technical or structural measures.  Until the implementation of this safety recommendation, it is recommended that a suitable employee be used to secure each of the two track-level platform entrances in Kirchstetten station.  Reasoning: In Kirchstetten station, there are two track-level platform entrances which must be supervised when movements are allowed pursuant to Section 86(2) EisbBBV. Simultaneous supervision for both entrances cannot be guaranteed with a probability bordering on certainty by one employee.  ***Measures***  *The safety recommendation was examined by the Highest Railway Authority from a technical perspective, consulting experts in the fields of railway operations and railway structural engineering. This examination led to the conclusion that the considerations underlying the safety recommendation should be pursued in the scope of the monitoring activity.*  *Firstly, the infrastructure manager was asked to provide observations by letter of 21 January 2017. The two sets of observations submitted by the infrastructure manager referred to the measures taken by the infrastructure manager and the results of the inspections and are to be subsequently examined by the Highest Railway Authority by way of the (provisional) investigation report when it is made available.*  *The measures provided by the highest railway authority that are planned in response to the safety recommendation are therefore still being implemented.* |
| **12/01/2017** | **Person injured by Z 1612 at Kirchstetten station**  **A-2017/002 (safety recommendation pursuant to Section 16(2) UUG 2005)**  The infrastructure managers are to evaluate whether measures in the sense of safety recommendation A-2017/001 are to be implemented at other operation points with identical or similar conditions.  ***Measures***  *The safety recommendation was examined by the Highest Railway Authority from a technical perspective, consulting experts in the fields of railway operations and railway structural engineering. This examination led to the conclusion that the considerations underlying the safety recommendation should be pursued in the scope of the monitoring activity.*  *Firstly, the infrastructure manager was asked to provide observations by letter of 21 January 2017. The two sets of observations submitted by the infrastructure manager referred to the measures taken by the infrastructure manager and the results of the inspections and are to be subsequently examined by the Highest Railway Authority by way of the (provisional) investigation report when it is made available.*  *The measures provided by the highest railway authority that are planned in response to the safety recommendation are therefore still being implemented.* |
| **09/03/2017** | **Rolled-away group of wagons at Bad Vöslau station**  **A-2017/003 (safety recommendation pursuant to Section 16(2) UUG 2005)**  The provisions of the ÖBB DV V3 Operating Instructions (Section 18) concerning the securing of stationary vehicles are to be examined with regard to whether, when securing stationary vehicles, it is not only necessary to consider the inclination ratios and the length of the parked vehicles, but the mass of the parked vehicles must also be a factor to be evaluated.  It is also to be examined to what extent the mandatory use of the lockable brake shoe mentioned in the DV V3 Operating Instructions (Section 18(5)) has to take place without exception at remote‑controlled operation points.  ***Measures***  *The safety recommendation was examined by the Highest Railway Authority from a technical perspective, consulting experts in the fields of railway operations and rail vehicle engineering. This examination led to the conclusion that the safety recommendation should be pursued and additional measures should be taken.*  *After completion of the two recommended examinations, the infrastructure manager requested a change to the service regulations cited. These service regulations are to be complied with by all railway undertakings exercising access on the basis of the rail network use conditions.*  *The Highest Railway Authority also referred to necessary measures in a general letter concerning ‘securing stationary rail vehicles’ of 23 June 2017. The subject is also being pursued as a priority in the scope of the monitoring activity.*  *The measures provided by the highest railway authority that are planned in response to the safety recommendation have therefore been completed.* |
| **23/09/2016** | **Collision of train ICE 90 with lost side entrance door in the Stierschweiffeld tunnel**  **A-2017/009 (safety recommendation pursuant to Section 16(1) UUG 2005)**  Ensure that passenger attendants without operational training receive a list of measures in relation to regulations, incidents and defects in their native language.  Note: for example, provisions regarding locking the side entrance doors.  ***Measures***  *The safety recommendation was examined by the Highest Railway Authority from a technical perspective, consulting experts in the fields of railway operations and rail vehicle engineering. This examination led to the conclusion that the considerations underlying the safety recommendation should be pursued in the scope of the monitoring activity.*  *Basically, the provision of a list of measures in itself has not yet allowed the necessary conduct and operational information to be known and also applied by the persons concerned before they are to be applied. The safety recommendation is also based on incorrect legal requirements insofar as operational training is in any case expressly provided for by law for passenger attendants:*   * *Pursuant to Regulation (EU) 2015/995 concerning the technical specification for interoperability relating to the ‘operation and traffic management’ subsystem (TSI OPE), point 4.6.4., the railway undertaking must make sure that the auxiliary staff (for example, catering and cleaning) not forming part of the train crew is, in addition to their basic instruction, trained to respond to the instructions of the fully trained members of the train crew.* * *Pursuant to Regulation (EU) 1303/2014 concerning the technical specification for interoperability relating to ‘safety in railway tunnels’ (TSI SRT), point 4.6.1.e), auxiliary train staff (e.g. catering, cleaning) who do not form part of the train crew shall, in addition to their basic instruction, be trained to support the actions of the train crew.* * *The provision of operational information in operational service and the performance of activities in connection with emergency management may only be carried out where the necessary capability exists (Section 23(1) lines 2 and 4 EisbEPV).* * *Under Section 34(1) EisbEPV, operational activities for the safety of railway users when evacuating trains may only be performed by railway workers with the relevant capability (‘train evacuation’), with Section 34(5) EisbEPV stipulating a practical test regarding the general, infrastructure- and vehicle-related professional knowledge. A separate test regarding operational service may be omitted under the conditions cited in the last sentence of Section 23(6) EisbEPV.* * *Pursuant to Section 2(1) line 4 EisbEPV and Section 12(7) EisbEPV, the capability required for qualified activity cited in the EisbEPV results not least from sufficient knowledge of the German language.*   *In respect of the locking of side entrance doors and the checking thereof, the simple provision of a list of measures in relation to regulations, incidents and defects in the native language of the passenger attendants is therefore not in any case sufficient.*  *In this regard, the railway undertaking was referred to the legal situation and a monitoring procedure was initiated. In addition, monitoring of all infrastructure managers and railway undertakings on main lines was initiated on the subject of ‘qualification of railway workers who perform activities for guaranteeing safety’.*  *The measures provided by the highest railway authority that are planned in response to the safety recommendation have therefore been completed.* |
| **23/09/2016** | **Collision of train ICE 90 with lost side entrance door in the Stierschweiffeld tunnel**  **A-2017/010 (safety recommendation pursuant to Section 16(1) UUG 2005)**  Examine whether, in the medium term, only passenger carriages with the RIC exchange feature with side-selective door control may be used on interoperable tracks of the EU in line with the demands of the ANSF.  ***Measures***  *The examination by the Highest Railway Authority recommended by the safety recommendation was carried out with consultation of experts in the fields of railway operations and rail vehicle engineering and resulted in the objective not being pursued.*  *With regard to the European Railway Agency, it must be noted that the tasks thereof are clearly established in provisions of EU law. They do not include the setting of general legislative acts. The Federal Minister for Transport, Innovation and Technology is also not competent to perform supervisory activity over the European Railway Agency or, by way thereof, to insist on the implementation of the safety recommendation by the European Railway Agency.*  *From a legal perspective, it must also be noted that the European Union establishes, in a generally binding manner, the EU-wide uniform technical requirements regarding rail vehicles, in particular through the Interoperability Directive in conjunction with the Technical Specifications for Interoperability (TSI). The agreement made between railway undertakings as from 1922 on the exchange and use of passenger cars in international rail traffic (Regolamento Internazionale delle Carrozze - RIC) only applies between those railway undertakings which approved the agreement. The safety report does not provide any reason for completely changing the system by turning from the interoperability rules to an agreement by railway undertakings in consideration of the demands of a national safety authority (Agenzia Nazionale per la Sicurezza delle Ferrovie - ANSF).*  *The TSI LOC&PAS applies to new design approvals and operating authorisations. On the basis of the provisions of the current TSI LOC&PAS, new vehicles (individual vehicles) must fundamentally have side-selective door control. However, the TSI LOC&PAS only applies to the new commissioning of vehicles, not to the operation of trains. The EisbBBV does not generally stipulate side-selective door control, but suitable side-selective door control forms the requirement for conductor-less operation.*  *From a technical perspective, it must be considered that, even if each individual vehicle of a train has corresponding door control, the train as a whole still does not have to have side-selective door control if, for example, the systems of the individual carriages are not compatible or the traction unit does not have a corresponding device.*  *In respect of the safety recommendation, it is not apparent to what extent side-selective door control could have contributed to the side entrance door not tearing away from the mount, and therefore to making it possible to avoid future identical or similar incidents, especially since it is stated with regard to the accident-causing vehicle on page 13 of the report that this in any case had such a device.*  *For the reasons cited, there is no provision for creating a stipulation according to which, in the medium term, only passenger carriages with the RIC exchange feature with side*‑*selective door control may be used on interoperable tracks of the EU in line with the demands of the ANSF (with interoperable vehicles, but in any case multiple units also possibly being excluded thereby).*  *The measures provided by the highest railway authority that are planned in response to the safety recommendation have therefore been completed.* |
| **23/09/2016** | **Collision of train ICE 90 with lost side entrance door in the Stierschweiffeld tunnel**  **A-2017/011 (safety recommendation pursuant to Section 16(1) UUG 2005)**  Examine whether an entry in the European Register of Authorised Types of Vehicles pursuant to Article 34 of Directive 2008/57/EC is required for vehicles from neighbouring countries of the Community which do not need authorisations for placing in service pursuant to Article 21 Point 12 of Directive 2008/57/EC.  Note: This concerns vehicles with RIC and RIV from the Republic of Belarus, the Russian Federation, the Republic of Moldova, Ukraine, the Republic of Turkey, Bosnia and Herzegovina, the Republic of Macedonia, Montenegro, the Republic of Albania, the Republic of Serbia, etc.  ***Measures***  *The examination by the Highest Railway Authority recommended by the safety recommendation was carried out with consultation of experts in the fields of railway operations and rail vehicle engineering and resulted in the objective not being pursued.*  *With regard to the European Railway Agency, it must be noted that the tasks thereof are clearly established in provisions of EU law. They do not include the setting of general legislative acts. The Federal Minister for Transport, Innovation and Technology is also not competent to perform supervisory activity over the European Railway Agency or, by way thereof, to insist on the implementation of the safety recommendation by the European Railway Agency.*  *There is no provision for registration of type approvals in the ERATV (European Register of Authorised Types of Vehicles) for vehicles which were authorised in non-EU states. There is no obligation in this regard for the operation of the vehicles.*  *Registration of vehicles from neighbouring countries of the European Union, which do not need authorisation for placing in service pursuant to Article 12 Point 12 of Directive 2008/57/EC, in the European Register of Authorised Types of Vehicles pursuant to Article 34 of Directive 2008/57/EC could not contribute to preventing the incident at issue and therefore future identical or similar incidents.*  *The measures provided by the highest railway authority that are planned in response to the safety recommendation have therefore been completed.* |
| **23/09/2016** | **Collision of train ICE 90 with lost side entrance door in the Stierschweiffeld tunnel**  **A-2017/012 (safety recommendation pursuant to Section 16(1) UUG 2005)**  Examine whether vehicles which are not entered in the European Register of Authorised Types of Vehicles pursuant to Article 34 of Directive 2008/57/EC may run either only as ‘Exceptional consignment’ or with a speed restriction.  ***Measures***  *The examination by the Highest Railway Authority recommended by the safety recommendation was carried out with consultation of experts in the fields of railway operations and rail vehicle engineering and resulted in the objective not being pursued.*  *From a legal perspective, the following is to be stated in this regard: Article 34 of the Directive on the interoperability of the rail system within the Community (recast) was to be transposed into the national law of the Member States by 19 July 2010 pursuant to Article 38. It was only after the transposition that a report had to be made to the agency when granting, amending, suspending or revoking a type approval, to allow the agency to update the register. Vehicles which were authorised before that time therefore do not also have to be entered in the European Register of Authorised Types of Vehicles (on account of the period of use of rail vehicles, the majority of all vehicles used). A stipulation that older vehicles should be subjected to operational restrictions is not provided for in the Interoperability Directive.*  *It is also not apparent to what extent the registration of a vehicle in the European Type Register (ERATV) should, in itself, increase the safety of the vehicle or the safety of the operations with that vehicle, or the registration could contribute to preventing future identical or similar incidents.*  *The measures provided by the highest railway authority that are planned in response to the safety recommendation have therefore been completed.* |
| **23/09/2016** | **Collision of train ICE 90 with lost side entrance door in the Stierschweiffeld tunnel**  **A-2017/013 (safety recommendation pursuant to Section 16(1) UUG 2005)**  Examine whether the regulations for the reporting of incidents should be revised in order to improve the notification chain.  Note: DV V 3, Section 97 and ZSB 26, Section 4  ***Measures***  *The technical examination by the Highest Railway Authority recommended by the safety recommendation resulted in the objective being pursued.*  *Following detailed explanations of the factual and legal situation, the infrastructure manager indicated that a need for change with regard to the provisions regarding communication in emergencies was recognised and the amendment of the corresponding provisions is being addressed. The actual implementation is being pursued in the scope of the monitoring activity.*  *The measures provided by the highest railway authority that are planned in response to the safety recommendation have therefore been completed.* |
| **19/10/2016** | **A-2017/014 (safety recommendation pursuant to Section 16(1) UUG 2005)**  It is recommended that the irregularities found by the railway undertakings through their railway supervision bodies (pursuant to Section 30 EisbG 1957) be immediately conveyed to the relevant railway authorities.  ***Measures***  *The examination by the Highest Railway Authority recommended by the safety recommendation was carried out and resulted in the objective not being pursued.*  *From a legal perspective, it is stated that such an obligation is not provided for in the Railway Act and could only be imposed on the railway supervision bodies through an amendment of the Railway Act. Section 19c EisbG stipulates that accidents and incidents are to be reported to the Federal Safety Investigation Authority. Section 5 UUG 2005 also merely contains legal definitions of accidents, serious accidents, incidents and serious incidents and events. The term ‘irregularities’ used in the safety recommendation is not defined, but probably relates, in the true sense of the word, to all events that do not regularly occur. It is, however, to be assumed that numerous irregularities, including those with no safety relevance, are noted by railway supervision bodies. Should irregularities mean occurrences which do not adversely affect safe operations, these are probably outside the competence of the authority. Even in the case of safety-relevant incidents, directly informing the undertaking for rapid action is more suitable than informing the authority, which would only have to inform the undertaking in turn. Section 39b(1)(8) EisbG also stipulates that essential parts of the safety management system are, inter alia, methods which ensure that accidents, incidents, near misses and other dangerous occurrences are reported, investigated and assessed and the necessary preventive measures are taken.*  *As the implementation of the safety recommendation involves enormous effort with regard to the transmission, documentation and follow-up of all irregularities found by railway supervision bodies that is barely countered by any recognisable benefit, the safety recommendation is not being pursued.*  *The measures provided by the highest railway authority that are planned in response to the safety recommendation have therefore been completed.* |
| **04/10/2017** | **Person killed by Z 41820 at the Puch bei Hallein stop**  **A-2017/015 (safety recommendation pursuant to Section 16(2) UUG 2005)**  It is to be ensured that, when trains pass by platform 1 at the Puch bei Hallein stop, the area in front of the waiting room and, on platform 2, the area in front of the stairway entrance/waiting room are clearly identified to the railway users as areas that must be kept clear and this is pointed out in good time by loudspeaker announcements. Until the implementation of these measures, the speeds should be limited to 60 km/h for freight trains passing through and to 100 km/h for passenger trains on both tracks, in both directions, at the Puch bei Hallein stop.  Reasoning: At the Puch bei Hallein stop, the structural situation means that high flow speeds are to be reckoned with on platform 1 in the area of the waiting room. According to the report currently available, ‘Examination report; measurement and test runs 2004 on the Vienna West-Salzburg line; Westbahn section Prinzersdorf to Ybbs a.d. Donau; aerodynamics: measurements on the Pöchlarn platform’, the speed for freight trains was further reduced as, according to that report, a higher flow speed with a comparatively lower train speed is to be expected with freight trains with greatly varying wagon material and freight trains with loaded HGVs.  ***Measures***  *The infrastructure manager implemented a speed reduction to 60 km/h for freight trains passing through and to 100 km/h for passenger trains passing through on both tracks, in both directions, as an immediate measure on 17 October 2017 in the platform area of Puch bei Hallein station. This measure was only suspended again after implementation of the following measures:*   * *Installation of loop fastener straps on all platforms (4 per platform) for securing prams, including pictograms regarding this measure. The site rules were adapted accordingly.* * *Strengthening of the announcements for all trains passing through - adding the reference to ‘prams’.* * *‘Pram’ safety video shown in cinemas before children’s films.* * *Prams added to ‘safety first’ posters regarding correct behaviour.*   *The Highest Railway Authority informed the infrastructure manager by letter of 20 November 2017 that, after consulting an official expert in railway structural engineering, the Highest Railway Authority was of the opinion that the measures fundamentally appear to suitably implement the safety recommendation. With regard to the locations of the installation of the loop fastener straps in the platform area, appropriate consideration of the local conditions (e.g. coordination with the situation of the barrier-free ascents to the trains or seating possibilities on the platform) was assumed.*  *The measures provided by the highest railway authority that are planned in response to the safety recommendation have therefore been completed.* |
| **04/10/2017** | **Person killed by Z 41820 at the Puch bei Hallein stop**  **A-2017/016 (safety recommendation pursuant to Section 16(2) UUG 2005)**  The infrastructure managers are to ensure that operation points with similar conditions, noise barriers as outer platform limitation and a platform width of 3.5 m or less are identified and measures corresponding to safety recommendation A-2017/015 are taken. Those operation points are to be made known to the SUB in order for further investigations to possibly be conducted there.  ***Measures***  *The safety recommendation was implemented directly by the infrastructure manager and operation points across Austria were evaluated to this effect. In this regard, similar conditions to those described in safety recommendation A-2017/016 were identified at 186 platform systems.*  *The measures provided by the highest railway authority that are planned in response to the safety recommendation have therefore been completed.* |
| **26/12/2016** | **Derailment of Z 48600 at Spittal-Millstättersee station**  **A-2017/017 (safety recommendation pursuant to Section 16(1) UUG 2005)**  Examine whether the random examination pursuant to EVIC should be continued by the RU.  Note: This also concerns other bulk goods transport.  ***Measures***  *The safety recommendation is being examined by the Highest Railway Authority from a technical perspective, consulting an expert in the field of rail vehicle engineering. In this regard, all railway undertakings that carry out freight traffic and infrastructure managers that are allowed to carry freight traffic in order to maintain the infrastructure were asked for information on the measures taken in response to the safety recommendation (directed at all railway undertakings by the Federal Safety Investigation Authority). As railway undertakings that only provide passenger rail services are formally covered by the safety recommendation but not actually affected thereby, these were not involved. The observations submitted in this regard are being assessed by the authority and measures are being taken in the scope of the monitoring activity where necessary.*  *The safety recommendation is therefore still being examined.* |
| **26/12/2016** | **Derailment of Z 48600 at Spittal-Millstättersee station**  **A-2017/018 (safety recommendation pursuant to Section 16(1) UUG 2005)**  Examine whether the permanent monitoring of goods wagons regarding overloading through train run checkpoints needs to be intensified.  Note: Demanded by bmvit IV/Sch2 mechanical engineering division in the course of the observation procedure.  ***Measures***  *The safety recommendation was examined by the Highest Railway Authority from a technical perspective, consulting experts in the field of rail vehicle engineering. This examination led to the conclusion that the safety recommendation should be pursued.*  *In this regard, information is being gathered from the infrastructure managers regarding the existing plans for the development of the train run checkpoints (e.g. with regard to situation, scope of detection, time frame).*  *The measures provided by the highest railway authority that are planned in response to the safety recommendation are therefore still being implemented.* |

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| **05/05/2015** | **Collision of Z 8762 with Z 8787 next to Waldstein unmanned stop (continued)**  **A-2016/003**  It is to be ensured that activities which are not directly linked to operations cannot be ordered. It has to be noted in this context that, in accordance with the provisions of Section 132(8) EisBBV, staff employed in transport services are not allowed to use sound and image reception and reproduction equipment during transport operations for non-operational purposes.  ***Measures*** *Making phone calls while on service duty is forbidden (except for phone calls absolutely necessary for work). This is stipulated on the one hand in the relevant operating instructions, and a service directive dated 2 February 2006 also stipulates that conducting private calls on mobile phones while performing service duty is strictly forbidden.*  **A-2016/004**  It is to be ensured that changes or additions to the current regulations on operations (e.g. update of service directives) are appropriately updated and communicated.  ***Measures*** *There is currently no information available on initiated or implemented measures.*  **A-2016/005**  It is to be ensured that the provisions of MeldeVO-Eisb 2006 in relation to the appropriate reporting of accidents and incidents to the SUB are observed.  ***Measures*** *There is currently no information available on initiated or implemented measures.* |
| **31/05/2016** | **Loss of a vehicle part on RJ 160 at St. Pölten central station**  **A-2016/006**  It is to be ensured by way of an appropriate procedure that, after work is performed in the underfloor section of railjet models (e.g. water filling, toilet tank draining and the like), the appropriate closing and locking of the covers to prevent unintentional opening is checked before departure. It is also to be ensured that this inspection is performed by staff trained and authorised in accordance with ZSB 31 Section 13.  ***Measures*** *Every site where RJ models are filled with water or drained is applying a four-eyes principle in relation to checking the locks.*  *From a technical perspective, new skirt locks were installed in three RJ models (RJ 25, 43, 48). These are in trial operation for approximately six months (over 150 000 km). If the trial operation is positively assessed, all RJ models will be retrofitted. The new locks are being continuously inspected during preventive maintenance.*  **A-2016/019**  In accordance with the provisions of ZSB 31 Section 42(8), an inspection concept is to be drawn up for the type, scope, inspection location and frequency of technical management of wagons in accordance with ZSB 31 Section 42(3). It is to be checked whether such inspection concepts are subject to an official approval procedure.  ***Measures*** *The safety recommendation is being examined as part of a pending supervisory procedure by the bmvit.* |
| **31/05/2016** | **Loss of a vehicle part on RJ 160 at St. Pölten central station (continued)**  **A-2016/020**  In relation to the provisions of ZSB 31 concerning vehicle inspection, the obligations mentioned in DV V3 Section 63(4) for train guards and train drivers are to be examined with regard to whether or to what extent these provisions are to be applied. In further consequence, it would have to be examined whether training according to ZSB 31 Section 13 is required for the activities mentioned in DV V3 Section 63(4).  ***Measures*** *The safety recommendation is being examined as part of a pending supervisory procedure by the bmvit.* |
| **15/07/2015** | **Collision of Z 35438 with Z 48071 at Leopoldau station**  **A-2016/007**  For the purpose of planned future rebuilding measures in the field of the safety equipment at Leopoldau station, it is proposed to construct a signal gantry for ES X005, Z012 and Y011.  ***Measures*** *For the clear recognisability of the signals concerned, the construction of a signal gantry for entry signals X005, Z012 and Y011 is to be implemented similarly to that at km 10.137 by 31 December 2018. Signal X005 is to be secured with a 500 Hz magnet by 30 April 2017.*  **A-2016/018**  The ‘identification’ signals, which may be installed to announce main signals, are no longer clearly recognisable for ES X005. The three signals installed on the catenary masts are partly already very weather-beaten and unrecognisable, and should be replaced during the next inspection work.  ***Measures*** *The ‘identification’ signals were all replaced by the IM.* |
| **22/05/2015** | **Collision of Z 7028 with HGV on railway crossing between Purgstall station and Scheibbs station**  **A-2016/008**  Examine whether, during the annual inspection of the railway crossing to be carried out by the IM in accordance with Section 9(1) and applying Section 91(4) EisbKrV, all legally stipulated equipment and danger signs have to be inspected. If deficiencies are found, the body responsible for road construction and the road regulatory authority should be informed.  ***Measures*** *The responsibility for road signs is borne by the body responsible for road construction. In accordance with the provisions of ÖBB DV B 6 (service regulations regarding the securing of level crossings), the body responsible for road construction is informed if deficiencies are found in relation to road signs. It is also not up to the railway undertakings to order the body responsible for road construction to install or apply road signs. This responsibility lies solely with the district office as road traffic authority.*  **A-2016/009**  Examine whether, from the time of the establishment of the railway crossing’s non-compliant condition until the reinstatement of the appropriate conditions (e.g. by the body responsible for road construction, etc.), the railway crossing must be closed to road traffic.  ***Measures*** *There is currently no information available on initiated or implemented measures.* |
| **22/05/2015** | **Collision of Z 7028 with HGV on railway crossing between Purgstall station and Scheibbs station (continued)**  **A-2016/010**  Examine whether, on the occasion of the inspections pursuant to EisbKrV, several railway crossings and non-public level crossings can be replaced with individual railway crossings with technical protection.  ***Measures*** *ÖBB-Infrastruktur AG is currently working to reduce the number of railway crossings and will also continue to pursue this on the line in question. An agreement was already concluded for this purpose in 2013 between the Federal Government, the state of Lower Austria and ÖBB-Infrastruktur AG, in order to optimise the line, including closing or merging railway crossings and level crossings.*  **A-2016/011**  Organisation of local special information events concerning railway crossings in general and the correct behaviour of road users in particular (e.g. in municipalities, in schools, directly at the railway crossing and the like).  ***Measures*** *The organisation of local information events concerning railway crossings in general and the correct behaviour of road users in particular (e.g. in municipalities, in schools, directly at the railway crossing and the like) is not part of the duties of a railway undertaking.*  *Nevertheless, in order to increase the awareness of road users, ÖBB implemented measures or is in the process of implementing measures.*  *In order to increase the awareness of railway users of dangerous situations and to provide concise and comprehensible information for safety on railway premises and safe railway transport, the ÖBB safety campaign ‘Stay on the safe side’ (Bleib auf der sicheren Seite) was launched back in 2012 and has been continuously extended ever since.*  *As an additional activity related to the ÖBB safety campaign, ÖBB-Infrastruktur AG launched ‘safety events at schools’ in January 2016. The aim is to win over youngsters of around 12 to 14 years of age as ambassadors of safety on railway premises.*  *At the meeting of the association of driving school owners in 2015, ÖBB-Infrastruktur AG informed participants about accident risks and safety precautions at railway crossings. ÖBB-Infrastruktur AG provided the video about the forces in collisions on railway crossings (crash simulation) for training in the driving schools. The aim of the cooperation is for driving schools to point out the particular situation at railway crossings during training.*  *Every year, large events are held all over the world on International ‘Level Crossing Awareness Day’ (ILCAD), all under the motto ‘Level crossings - safety first’. In addition to the campaigns organised throughout the year, ÖBB also participates in the annual campaign days and devises activities for awareness raising in the form of press information and TV reports. ÖBB produced a video for this purpose in order to show the danger and dramatic effects of a collision between a train and a car. On the 2016 campaign day, the new video ‘Emergency manoeuvres at railway crossing barriers – what to do if you are caught between the barriers’ was shown.* |
| **22/05/2015** | **Collision of Z 7028 with HGV on railway crossing between Purgstall station and Scheibbs station (continued)**  **A-2016/012**  Repeated key issue controls by the executive in relation to the behaviour of road users when using railway crossings.  ***Measures*** *There is currently no information available on initiated or implemented measures.*  **A-2016/013**  Examine whether the behaviour of road users when using railway crossings prescribed in the EisbKrV should be included in the StVO.  ***Measures*** *The railway crossing was regularly inspected as scheduled in the maintenance plan and its condition is compliant with the regulations. The results of the inspections and the railway crossing data sheet were consulted on the day of the accident as the basis for an immediate review, which did not reveal any shortcomings. The acoustic signals are audible in the area around the railway crossing.*  *The constructions erected on the adjoining property are not totally compliant with the legal provisions. A garden shed was built without a permit under railway law and, in breach of the permit, a fence was built without the approval of the IM. The case was reported.*  *However, the garden shed and the fence are situated on the side that is protected by the emission of acoustic signals and do not impair the audibility of the whistle signals. Accordingly, the garden shed and the fence did not obstruct visibility. The further structures and buildings were agreed with ÖBB Infrastruktur.*  **A-2016/014**  Examine whether DV B 6 of the ÖBB ‘Service regulations on the protection of level crossings’ should be adjusted to the provisions of the EisbKrV.  ***Measures*** *ÖBB DV B6 mirrors EKVO 1961 with additional contents on maintenance. These contents were also incorporated into the maintenance plans. ÖBB DV B6 was last updated in 1987, and no changes have been made to the maintenance regulations since that update.*  *Contents going beyond ÖBB DV B6 have been stipulated since 2012 in the EisbKrV, which means that there is no need for these contents to be stipulated in a provision within the meaning of Section 21a(3) EisbG.* |
| **23/09/2016** | **Collision of ICE 90 with vehicle parts in the Stiefschweiffeld tunnel**  **A-2016/015 (safety recommendation pursuant to Section 16(2) UUG 2005)**  Ensure that trains D 408 and D 409 undergo a vehicle inspection upon being handed over by the neighbouring states’ railways (ČD and TI).  ***Measures*** *Safety inspections on the Austrian-Czech and Austrian-Italian border crossing by specially trained employees were ordered as an immediate measure.*  **A-2016/016 (safety recommendation pursuant to Section 16(2) UUG 2005)**  Examine whether passenger carriages used in Austria have to be equipped with a side-selective door release mechanism and a central door locking mechanism controlled from the driver’s cab over the 12-core wiring (similarly to the provisions of the ANSF - see RIC, Appendix II - Special conditions for joining vehicles to passenger trains, country code 83).  ***Measures*** *There is currently no information available on initiated or implemented measures.* |
| **23/09/2016** | **Collision of ICE 90 with vehicle parts in the Stiefschweiffeld tunnel**  **A-2016/016 (safety recommendation pursuant to Section 16(2) UUG 2005)**  Examine whether passenger carriages used in Austria have to be equipped with a side-selective door release mechanism and a central door locking mechanism controlled from the driver’s cab over the 12-core wiring (similarly to the provisions of the ANSF - see RIC, Appendix II - Special conditions for joining vehicles to passenger trains, country code 83).  ***Measures*** *There is currently no information available on initiated or implemented measures.* |