

# **Management of Safety-Related Rail Vehicle Defects**

## **Synopsis**

This document defines requirements for recording, analysing and reporting safety-related defects, faults and failures on rail vehicles, plant and machinery, their components, systems, subsystems and related documentation. It also defines requirements for taking action following receipt of a national incident report (NIR).

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## Issue record

Issue	Date	Comments
One	December 2016	Replaces Railway Group Standard GERT8250 Issue Two as GERT8250 could not be retained as a National Safety Rule and is therefore reclassified as a Rail Industry Standard to maintain the GB industry practice for defect reporting.
Two	June 2023 [proposed]	Replaces issue one: Title changed: 'Management' to reflect the need for a decision process; 'Safety-related' to include a wider range of defects. References revised legislation following the UK's departure from the EU. Rationale and guidance added.

Revisions have not been marked by a vertical black line in this issue because the document has been revised throughout.

## Superseded documents

The following Railway Group documents are superseded, either in whole or in part as indicated:

Superseded documents	Sections superseded	Date when sections are superseded
RIS-8250-RST Issue One, Reporting High Risk Defects	All	June 2023 [proposed]

## Supply

The authoritative version of this document is available at [www.rssb.co.uk/standards-catalogue](http://www.rssb.co.uk/standards-catalogue). Enquiries on this document can be submitted through the RSSB Customer Self-Service Portal <https://customer-portal.rssb.co.uk/>

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## Part 1 Purpose and Introduction

### 1.1 Purpose

- 1.1.1 This document sets out requirements for the management of safety-related defects, faults and failures on rail vehicles, plant and machinery. This includes:
- a) Reporting urgent high-risk defects, faults and failures; that is, those which require urgent action;
  - b) Sharing information with users of similar rail vehicles and vehicles fitted with similar components, systems or subsystems; and
  - c) Corrective actions.
- 1.1.2 This document can be adopted by railway undertakings (RUs), infrastructure managers (IMs), entities in charge of maintenance (ECMs) and other relevant parties under their respective safety management systems or maintenance systems, to help discharge their legal responsibilities regarding the identification and reporting of safety-related defects, faults and failures on rail vehicles. The relevant legislation includes:
- a) Commission Regulation (EU) 1078/2012, on a common safety method for monitoring; this is retained in UK law under SI 2019/837.
  - b) Commission Regulation (EU) 1158/2010 on a common safety method for assessing conformity with the requirements for obtaining railway safety certificates; this is retained (as amended) in UK law by SI 2019/837.
  - c) The Railways and Other Guided Transport System Regulations 2006 (as amended) (ROGS).
  - d) The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013.
- 1.1.3 Other relevant parties can include, for example, suppliers and users of plant and machinery, vehicle owners and keepers.
- 1.1.4 It is GB practice to make use of the NIR-Online system for reporting urgent high-risk defects, faults and failures on all rail vehicles, plant and machinery, and components thereof, as this sets out a suitable framework.
- 1.1.5 The provision of the information on the NIR-Online system enables other rail industry parties operating similar rail vehicles and vehicles fitted with similar components, systems or subsystems to determine whether the identified risk is applicable to their own operation, and whether they need to implement actions to mitigate the identified risk.
- 1.1.6 When used correctly, the information in NIR-Online can aid 'corporate memory', enabling the GB rail industry to learn from past failures, which can help to avoid similar issues arising in future.

### 1.2 Application of this document

- 1.2.1 Compliance requirements and dates have not been specified because these are the subject of internal procedures or contract conditions.

- 1.2.2      If you plan to do something that does not comply with a requirement in this RIS, you can ask a Standards Committee to comment on your proposed alternative. If you want a Standards Committee to do this, please submit your deviation application form to RSSB. You can find advice and guidance on using alternative requirements on RSSB's website [www.rssb.co.uk](http://www.rssb.co.uk).

## 1.3      Health and safety responsibilities

- 1.3.1      Users of documents published by RSSB are reminded of the need to consider their own responsibilities to ensure health and safety at work and their own duties under health and safety legislation. RSSB does not warrant that compliance with all or any documents published by RSSB is sufficient in itself to ensure safe systems of work or operation or to satisfy such responsibilities or duties.

## 1.4      Structure of this document

- 1.4.1      This document sets out a series of requirements that are sequentially numbered. This document also sets out the rationale for the requirement, explaining why the requirement is needed and its purpose and, where relevant, guidance to support the requirement. The rationale and the guidance are prefixed by the letter 'G'.
- 1.4.2      Some subjects do not have specific requirements but the subject is addressed through guidance only and, where this is the case, it is distinguished under a heading of 'Guidance' and is prefixed by the letter 'G'.

## 1.5      Approval and authorisation of this document

- 1.5.1      The content of this document was approved by Rolling Stock Standards Committee on 9 March 2023.
- 1.5.2      This document [will be] authorised by RSSB on 28 April 2023 [proposed].

## Part 2 Monitoring and reporting

### 2.1 Assessment

- 2.1.1 Defects, faults and failures on rail vehicles, plant and machinery, and their components shall be assessed to determine whether they are:
- a) Safety-related;
  - b) High-risk; or
  - c) Urgent high-risk; see [2.3.1](#).
- 2.1.2 Details of safety-related and high-risk defects, faults and failures shall be shared with relevant parties.

#### Rationale

- G 2.1.3 Assessing, sharing and reporting safety-related information is a legal requirement for RUs, IMs and ECMs, as set out in [1.1.2](#).
- G 2.1.4 Network Rail's Plant Manual requires the use of the NIR-Online system.

#### Guidance

- G 2.1.5 A defect can lead to a fault; a fault can lead to a failure, and a failure can lead to an incident. 'Near misses' are considered as incidents which could have been accidents in different circumstances. An urgent, high-risk incident is therefore a defect, fault or failure which could have caused an accident, and gives rise to the need for urgent action such as a fleet check. Appendix [A](#) gives guidance on assessment and reporting of defects, faults and failures.
- G 2.1.6 RSSB provides several reporting systems:
- a) NIR-Online is used for reporting urgent, high-risk defects, faults and failures on rail vehicles, plant and machinery, as set out in this document;
  - b) Rail Notices is used for reporting urgent operating advice, as set out in RIS-3350-TOM;
  - c) The Safety Management Intelligence System (SMIS) is used for reporting safety-related information, as set out in RIS-8047-TOM.
- The Standards Catalogue entry for this document on the RSSB website includes Technical Note TN105; this contains a flowchart to aid the decision process as to which system or systems to use.
- G 2.1.7 Requirements for reporting defects, faults and failures of Control, Command and Signalling Systems are set out in RIS-0707-CCS. RIS-3119-TOM sets out requirements for investigations of accidents and incidents. RIS-3437-TOM sets out operational requirements relating to defective on-train equipment.
- G 2.1.8 It is good practice for RUs, IMs, ECMs and other relevant parties to use a dedicated system to monitor safety-related information in order to facilitate assessment, sharing and reporting. Such systems could include proprietary Defect (or Failure) Reporting, Analysis, and Corrective Action System (DRACAS or FRACAS) software. Use of DRACAS is a requirement in RIS-0707-CCS.

- G 2.1.9 Relevant parties for sharing of details of high-risk defects, faults and failures include other RUs, IMs and ECMs responsible for similar rail vehicles, or those for vehicles with similar components, systems or processes. Examples include:
- a) Mechanical components such as wheels, wheelsets, brake discs or pads;
  - b) Vehicle equipment and systems such as doors, brakes, air supply and body-mounted equipment, whether mechanical, electrical, electronic or software-controlled;
  - c) Common systems such as:
    - i) Automatic Warning System (AWS);
    - ii) Train Protection and Warning System (TPWS);
    - iii) Global System for Mobile Communications - Railway (GSM-R);
    - iv) European Train Control System (ETCS); and
    - v) Passenger Information Systems (PIS).
- This list is not exhaustive.
- G 2.1.10 It is good practice to share issues relating to software configuration and cyber security, as these also have the potential to cause an incident. Examples include: incorrect or incomplete software updates; unauthorised access to confidential data; compromised data integrity; denial of availability of data or a system. This does not relieve an RU or IM of any obligation for reporting under the Network and Information Systems (NIS) Regulations 2018; see also the Department for Transport's guidance on Rail Cyber Security.
- G 2.1.11 It is good practice to share details of high-risk defects, faults and failures through user groups, technical committees or other similar means.

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## 2.2 Trends

- 2.2.1 Trends in defects, faults and failures on rail vehicles, plant and machinery, and their components, shall be monitored.
- 2.2.2 Adverse trends in safety-related defects, faults and failures shall be shared with relevant parties.

### Rationale

- G 2.2.3 Assessing, sharing and reporting of safety-related information is a legal requirement for RUs, IMs and ECMs, as set out in [1.1.2](#).

### Guidance

- G 2.2.4 It is good practice for RUs, IMs, ECMs and other relevant parties to use a monitoring system for safety-related defects, faults and failures in order to facilitate assessment of trends. Such systems could include proprietary DRACAS or FRACAS software. Use of DRACAS is a requirement in RIS-0707-CCS.
- G 2.2.5 An example of an adverse trend is an increasing rate of failure of a component.

- G 2.2.6 Relevant parties for sharing of adverse trends in safety-related defects, faults and failures include other RUs, IMs and ECMs responsible for similar rail vehicles, or those for vehicles with similar components and systems; see [G 2.1.9](#).
- G 2.2.7 It is good practice to share adverse trends in safety-related defects, faults and failures through user groups, technical committees or other similar means.
- G 2.2.8 Further guidance is given in Appendix [A](#); see also BS EN 50126-1:2017.
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## 2.3 National Incident Reports (NIRs)

### 2.3.1 Initiation

- 2.3.1.1 When an urgent high-risk defect, fault or failure is identified on a rail vehicle, plant or machinery, or system or component thereof, an NIR shall be initiated using NIR-Online.
- 2.3.1.2 In the event that the NIR-Online system is unavailable, details of urgent high-risk defects, faults and failures shall be shared by completing and emailing Form 8250 to initiate an NIR.
- 2.3.1.3 Where the root cause of the urgent high-risk defect, fault or failure is known at the time of generating a first report, an NIR shall be generated with a 'complete' status.
- 2.3.1.4 Where the root cause of the urgent high-risk defect, fault or failure is not known:
- a) An initial NIR shall be generated giving the details known to date;
  - b) Interim NIRs shall be raised, if necessary, as further details become known; and
  - c) A concluding NIR shall be generated when the root cause of the urgent high-risk failure, fault or defect has finally been identified.
- 2.3.1.5 Interim and concluding NIRs shall quote the initial NIR reference number.

### Rationale

- G 2.3.1.6 These requirements assist RUs, IMs and ECMs in discharging their legal obligations as set out in [1.1.2](#).

### Guidance

- G 2.3.1.7 Users of rail vehicles, plant and machinery can use NIR-Online to communicate urgent high-risk defects, faults or failures for the following:
- a) Items of mechanical and electrical equipment, including portable or transportable infrastructure plant and work equipment;
  - b) Plant and work equipment used for, or in association with, the construction, alteration, renovation, repair, maintenance or inspection of railway infrastructure;
  - c) Equipment used on stations to move people or materials;
  - d) Items of equipment associated with the maintenance of rail vehicles and plant and machinery;
  - e) Other rail vehicles operating on infrastructure outside the scope of Railway Group Standards, for example, in depots;
  - f) On-track machines (OTMs) and on-track plant (OTP); and



g) Digital systems and software associated with the above; see [G 2.1.10](#).

- G 2.3.1.8 Form 8250 is available on the Standards Catalogue page of the RSSB website.
- G 2.3.1.9 Both the NIR-Online system and Form 8250 are designed to ensure that a level of detail is captured which will enable affected recipients to develop an action plan.
- G 2.3.1.10 It is good practice to generate one or more interim NIRs where investigation into the root cause of the defect, fault or failure highlights further important information.
- G 2.3.1.11 The timeliness of raising and concluding an NIR is highly dependent on the nature of the defect, fault or failure, and the arising action. Table 1 in Appendix A sets out the minimum data used for raising an NIR, which includes 'Remedial action taken'. Hence, if a course of action arising from the defect, fault or failure has not been defined, it may not be appropriate to raise an NIR. However, if, for example, a fleet check is considered necessary, it is likely that other RUs, IMs or ECMs would need to be alerted; it would then be appropriate to raise an NIR. It is good practice to raise immediately any NIR pertaining to cyber security, but this does not relieve an RU or IM of any obligation for reporting under the NIS Regulations 2018; see also the Department for Transport's guidance on Rail Cyber Security..
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## 2.3.2 Receipt

- 2.3.2.1 RUs, IMs and ECMs shall acknowledge receipt of an NIR on NIR-Online within 24 hours of the NIR being issued.
- 2.3.2.2 RUs, IMs and ECMs receiving an NIR shall decide whether to initiate any action for similar rail vehicles or vehicles fitted with similar components, systems or subsystems under their control.
- 2.3.2.3 RUs, IMs and ECMs receiving an NIR shall make their suppliers aware of urgent high-risk defects, faults or failures discovered in items or services of the types they supply, and the need for any corrective action by them.

### Rationale

- G 2.3.2.4 These requirements assist RUs, IMs and ECMs in discharging their legal obligations as set out in [1.1.2](#).

### Guidance

- G 2.3.2.5 It is good practice to acknowledge as soon as possible any NIR related to cyber security.
- G 2.3.2.6 It is good practice for other users of NIR-Online (that is, users who are not RUs, IMs or ECMs) to acknowledge receipt of NIRs within 72 hours of issue.
- G 2.3.2.7 When an RU, IM or ECM is aware that a supplier supplies more than one RU, IM or ECM, it is good practice to adopt a collaborative approach. Suppliers in this context can include owners and keepers of rail vehicles, including plant, OTP and OTMs.
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### 2.3.3 Response

- 2.3.3.1 Following receipt of an NIR, RUs, IMs and ECMs shall input to NIR-Online the relevance or otherwise of the NIR to their organisation.
- 2.3.3.2 Where the NIR is considered relevant, the RU, IM or ECM shall record any actions to be taken by themselves or their supplier as a result of receiving the NIR.
- 2.3.3.3 Where an RU, IM or ECM has acknowledged an NIR as relevant to their organisation, they shall, in a timely manner:
- a) Close out the NIR; and
  - b) Record the close-out action taken.

#### Rationale

- G 2.3.3.4 These requirements assist RUs, IMs and ECMs in discharging their legal obligations as set out in [1.1.2](#).

#### Guidance

- G 2.3.3.5 An NIR is likely to be relevant to an RU, IM or ECM if they operate or maintain similar railway vehicles, plant or machinery, or those fitted with similar components, systems or subsystems in similar circumstances, or use similar processes, to the organisation that initiated the NIR.
- G 2.3.3.6 NIRs related to cyber security can have much wider implications.
- G 2.3.3.7 Timeliness of NIR closure will depend upon the nature of the NIR and the action taken. Examples could include:
- a) Completion of a fleet check;
  - b) Completion of a campaign change;
  - c) Completion of a functional review of software or processes;
  - d) Incorporation of new inspections in maintenance documentation.

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### 2.3.4 System unavailability

- 2.3.4.1 If an RU, IM or ECM determines that the NIR-Online system is unavailable, they shall notify the relevant organisation(s), except where they have already been advised that the system is unavailable.
- 2.3.4.2 RUs, IMs or ECMs shall advise the relevant organisation(s) of contingency arrangements for the receipt of NIRs.

#### Rationale

- G 2.3.4.3 These requirements assist RUs, IMs and ECMs in continuing to discharge their legal obligations in the event that the NIR-Online system is unavailable, as set out in [1.1.2](#).

#### Guidance

- G 2.3.4.4 The relevant organisations are Network Rail and the system provider, who jointly administer the NIR-Online system on behalf of RSSB. Contact details for Network Rail

are shown on Form 8250, which is available on the Standards Catalogue page of the RSSB website. See also [Part 3](#) of this document.

- G 2.3.4.5 As an alternative to contacting Network Rail, assistance may be available from the system provider or from RSSB; contact details are available on their respective websites.
  - G 2.3.4.6 It is good practice for each RU, IM or ECM to provide a unique dedicated email address for receipt of NIRs; this ensures continuity in the event that named individuals are unavailable. The same applies to users of other vehicles, plant and machinery, where there is a need to acknowledge receipt.
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## Part 3 NIR-Online system administration

### 3.1 System administrator responsibilities

3.1.1 The NIR-Online system administrator shall verify and maintain the list of recipients of NIRs; this includes RUs, IMs, ECMs and their relevant suppliers.

3.1.2 The NIR-Online system administrator shall also:

- a) Validate initial or complete NIRs to accept or reject the report;
- b) Monitor receipt of NIR acknowledgements;
- c) Follow up after 24 hours, when acknowledgement of receipt of the NIR has not been received from an RU, IM or ECM;
- d) Follow up, if necessary after 72 hours, if acknowledgement has not been received from other users; see [G 2.3.2.6](#);
- e) Maintain a contingency plan for receiving and distributing NIRs when NIR-Online is unavailable;
- f) Implement the contingency plan when it is determined that NIR-Online will be unavailable for an unacceptable period;
- g) Update NIR-Online with reports received whilst the system was unavailable; and
- h) Advise users of any changes to the administrative arrangements.

#### Rationale

G 3.1.3 These requirements ensure that the NIR-Online system administrator can assist RUs, IMs and ECMs in discharging their legal obligations, as set out in [1.1.2](#).

#### Guidance

G 3.1.4 Access to NIR-Online is administered by Network Rail, who decide whether an organisation has a legitimate interest.

G 3.1.5 Other organisations involved in the GB rail industry that receive NIRs include:

- a) Approvals bodies;
- b) Leasing companies and other vehicle owners;
- c) Owners and users of plant and machinery;
- d) Manufacturers of rail vehicles, plant and machinery;
- e) Rail Partners;
- f) Rail Delivery Group;
- g) The Railway Safety Authority (ORR);
- h) RSSB.

G 3.1.6 An NIR report can be rejected if it is considered to:

- a) Duplicate an existing NIR;
- b) Contain incorrect information;
- c) Be potentially malicious or vexatious; or
- d) Have been raised in error.

## Appendices

### Appendix A      Reporting and monitoring

**Note:** The content of this appendix is provided as guidance in support of Part 2 of this document.

#### A.1      Reporting and monitoring systems

##### Guidance

- G A.1.1      Defects, faults and failures include parts and components of rail vehicles, plant and machinery that, whilst not affecting the integrity of the vehicle, could cause damage or injury if they become detached and are expelled at high speed.
- G A.1.2      Safety-related defects, faults and failures are those which adversely affect, or have the potential to adversely affect, safety on the railway. These can therefore include issues related to software and cyber security; see [G 2.1.10](#).
- G A.1.3      A good reporting and monitoring system will facilitate:
- a) Positive actions with an appropriate degree of urgency when a safety-related defect, fault or failure is discovered or advised;
  - b) Sharing of information and the exchange of data between organisations;
  - c) Positive actions whenever adverse trends emerge that could affect the safety of the railway or its users.
- G A.1.4      It is generally not appropriate for RUs or IMs to delegate their responsibility for monitoring and reporting to contractors or suppliers. An exception is made for ECMs due to their legal responsibility as set out in [1.1.2](#). Nevertheless, it is good practice to for RUs and IMs to include a contractual requirement that suppliers make them aware of safety-related defects, faults or failures associated with their contracted scope of supply.
- G A.1.5      A good reporting and monitoring system will enable:
- a) Recording of relevant information for safety-related defects, faults and failures;  
Table [1](#) sets out the information that is mandatory to be recorded in NIR-Online; this data may also be useful for recording safety-related and high-risk defects, faults and failures.
  - b) An assessment of whether the safety-related defect, fault or failure is high-risk and urgent, thus warranting an NIR;  
This assessment is normally completed by a designated person with relevant knowledge and experience.
  - c) Recording of the results of subsequent investigations; and
  - d) Recording of corrective actions taken.
- G A.1.6      It is good practice to monitor and analyse the information recorded in reporting systems, to:
- a) Review defects, faults and failures raised by the company itself;

- b) Review defects, faults and failures raised by other railway companies; this is normally achieved by periodically interrogating NIR-Online.

G A.1.7 Monitoring and analysis ensures that:

- a) Trends can be monitored;  
b) Adverse trends can be identified; and  
c) An assessment can be made as to whether, for example, changes to maintenance plans or practices may be required.

G A.1.8 Guidance on using the NIR-Online system for the above is available within the help pages on the NIR-Online website.

Item	Format in NIR-Online
Title	Free text
Date	dd/mm/yyyy (selected from calendar)
Vehicle, plant or equipment identification	Alphanumeric (12 characters) <b>Note:</b> Vehicle information may be retrieved by clicking the 'Check' button. Additional information is required to identify OTP and equipment, such as hirer, owner, manufacturer, model and description.
Use being made of vehicle, plant or equipment	Drop down selection
Operating restrictions applied	Free text* (2000 characters)
System that has caused the defect	Drop-down selection
Description of defect and cause if known	Free text* (4500 characters) <b>Note:</b> Includes faults and failures.
Location	Free text* (500 characters). <b>Note:</b> Needs sufficient text to identify the location (for example: station, route and mileage, bridge, nearest town, grid reference)
Remedial action taken	Free text* (2000 characters)
Justification for urgent advice	Free text* (2000 characters)
*It is good practice to keep information brief in free text fields; for example, by using bullet points rather than narrative.	

**Table 1:** Mandatory recorded data

## Definitions

accident	An unwanted or unintended sudden event or a specific chain of such events which have harmful consequences (including death, injury, loss of a system or service, and environmental damage). Source: <i>Railway Safety Directive</i>
Automatic Warning System (AWS)	A system that gives train drivers in-cab warnings of the approach to signals, reductions in permissible speed and temporary/ emergency speed restrictions, and to apply the brakes in the event that a train driver does not acknowledge cautionary warnings given by the system within the specified time. Source: <i>GERT8075</i>
defect	Non-fulfilment of specified or intended usage requirements, which can prevent a component or part of a system from accomplishing its design purpose.  <b>Note:</b> A defect can lead to a fault in a component or system.
entity in charge of maintenance of a vehicle (ECM)	An ECM is registered as an ECM for a vehicle in the national vehicle register, and can include people or organisations such as railway undertakings, infrastructure managers, keepers or maintenance organisations. Source: <i>ROGS</i>
error [technical]	Discrepancy between a computed, observed or measured value or condition, and the true, specified or theoretically correct value or condition. Source: <i>IEV 192-03-02</i>  <b>Note:</b> An error within a system may be caused by failure of one or more of its components, or by the activation of a systematic fault. Source: <i>IEV 192-03-02</i>
European Train Control System (ETCS)	The signalling, control and train protection part of the European Rail Traffic Management System designed to provide interoperability and standardisation across European railways.
failure	An unwanted event where a system or component cannot, or is prevented from, functioning and / or performing as required.  <b>Note:</b> A failure has the potential to lead to an incident or accident.
fault	Impairment of a component, or part of a system, to perform a required function, which may lead to an error.  <b>Note:</b> This includes 'transient faults' which may occur once and subsequently disappear.  <b>Note:</b> The fault can present itself via an indication to users.
Global System for Mobile Communications – Railway (GSM-R)	The European Standard specific to railway applications for the transmission by radio of voice and data between train and trackside installations. Source: <i>GERC8517 Issue 1</i>

high-risk [defect, fault or failure]	<i>safety-related defect, fault or failure</i> that caused, or had the potential to cause, an <i>accident</i> .
incident	An unplanned, uncontrolled or unintended event which under different circumstances could have resulted in an accident.
infrastructure manager (IM)	Has the meaning given to it in the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (as amended), but is limited to those infrastructure managers who hold a safety authorisation issued in respect of the mainline railway. Source: <i>ROGS</i>
passenger information system (or services) (PIS)	A system that provides information to passengers.
railway undertaking (RU)	Has the meaning given to the term 'transport undertaking' in the Railways and Other Guided Transport Systems (Safety) Regulations 2006 as amended, but is limited to any private or public undertaking the principal business of which is to provide rail transport services for goods and/or passengers, with a requirement that the undertaking must ensure traction. Source: <i>ROGS</i>
safety-related [defect, fault or failure]	<i>defect, fault or failure</i> of, or damage to, a rail vehicle, equipment or plant & machinery, or component or system thereof, which prevents or impairs its intended safety function.
system provider [NIR-Online]	administrator of the NIR-Online website.  <b>Note:</b> This is currently SNC-Lavalin, using their clyx.net® portal.
Train Protection and Warning System (TPWS)	A system mitigating Signals Passed At Danger and non-respect of permissible speeds.
urgent high-risk [defect, fault or failure]	<i>high-risk defect, fault or failure</i> that gives rise to the need to undertake an urgent campaign check, component replacement or repair programme, or withdrawal of fleet, equipment or plant & machinery.



## References

The Standards catalogue gives the current issue number and status of documents published by RSSB: <http://www.rssb.co.uk/standards-catalogue>.

RGSC 01	Railway Group Standards Code
RGSC 02	Standards Manual

## Documents referenced in the text

### RSSB documents

RIS-0707-CCS	Management of Safety Related Control, Command and Signalling System Failures, Faults and Defects
RIS-2453-RST	Vehicle Registration, Marking and Numbering
RIS-3119-TOM	Accident and Incident Investigation
RIS-3350-TOM	Communication of Urgent Operating Advice
RIS-3437-TOM	Defective On-Train Equipment
RIS-8047-TOM	Reporting of Safety Related Information

### Other references

BS EN 50126-1:2017	Railway Applications. The Specification and Demonstration of Reliability, Availability, Maintainability and Safety (RAMS)
NR/L2/RMVP/0200	Network Rail Plant Manual
Rail Cyber Security	Department for Transport, Rail Cyber Security, Guidance to Industry, February 2016
Regulation (EU) 1078/2012	Commission Regulation (EU) No 1078/2012 of 16 November 2012 on a common safety method for monitoring
Regulation (EU) 1158/2010	Commission Regulation (EU) No 1158/2010 of 9 December 2010 on a common safety method for assessing conformity with the requirements for obtaining railway safety certificates
SI 2005/1992	The Railways (Accident Investigation and Reporting) Regulations 2005
SI 2006/599	The Railways and Other Guided Transport Systems (Safety) (Amendment) Regulations 2006 (as amended) (ROGS)
SI 2013/1471	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)
SI 2018/506	The Network and Information Systems Regulations 2019 (NIS)
SI 2019/837	The Rail Safety (Amendment etc.) (EU Exit) Regulations 2019