

Guidance on Operational Railway Safety Awareness

Synopsis

The document is aimed at Railway Undertakings and any other railway actors operating in or around the railway environment. It gives guidance on operational railway safety awareness, setting out the risks, hazards and control measures to be considered in training. It also includes a framework for competence assessment and review.

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Guidance on Operational Railway Safety Awareness

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This standard does not supersede any other Railway Group documents.

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Rail Industry Guidance
Note
GOGN3616
Issue: One
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Part 1 Purpose and introduction

G1.1 Purpose

- G1.1.1 This document gives guidance on operational railway safety awareness, setting out the risks, hazards and control measures that could be considered in training. The document is aimed at Railway Undertakings (RUs) and any other railway actors operating in or around the railway environment. This document does not set out requirements.
- G1.1.2 Whilst this guidance is not aimed at the following transport systems, they may choose to adopt it:
- a) Infrastructure Managers (IMs);
 - b) Metros and other light rail systems;
 - c) Networks that are functionally separate from the rest of the mainline railway and intended only for the operation of local, urban or suburban passenger services; or
 - d) Heritage, museum or tourist railways that operate on their own networks.
- G1.1.3 Network Rail uses the Sentinel scheme to manage personal track safety for people who have to walk or work on Network Rail managed infrastructure. However, elements of this guidance may be useful or applicable to other infrastructure, such as yards, sidings and depots.
- G1.1.4 This Rail Industry Guidance Note, GOGN3616, gives guidance for a framework to train and develop staff, and monitor and assess the application of skills and knowledge (competence) required when moving safely around the railway. The framework supports RUs and any other railway actors to control risks, mitigate hazards and improve safety and performance.
- G1.1.5 The geographical scope of this guidance applies to all GB railway operational activity, which can include areas such as depots, sidings, yards, and freight terminals.

G1.2 Background

- G1.2.1 People are required, at times, to access the railway in the course of their duties. This has the potential to be a risk to the person's health or safety.
- G1.2.2 Personal safety incidents, ranging from slips, trips and falls to entrapment between train coaches, can cause injuries and fatalities, damage the industry's reputation and have an impact on timetables and staff resources, all of which are costly.
- G1.2.3 The term Personal Track Safety (PTS) is currently used to refer to the responsibilities and duties when working 'On or Near the Line' on the railway infrastructure. A PTS course and its competency cover a range of trackside skills and knowledge that track workers use regularly. A standard PTS course does not cover depots, yards, sidings, or freight terminals.
- G1.2.4 Using a standard PTS course may not address the risks associated with operational tasks, and having relevant site knowledge is important to allow staff to work safely in or around the railway environment.

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- G1.2.5 Implementing the guidance detailed in this document may give an alternative level of competence to Sentinel Scheme PTS for operational staff.
- G1.2.6 Every employer has a duty under The Management of Health and Safety at Work Regulations 1999 (MHSWR) to make a suitable and sufficient assessment of the risks arising from their activities to both their employees and non-employees. The regulations also require employers to consider the training and capabilities of employees. This includes those classed as vulnerable such as expectant mothers and young persons. Therefore, adopting this guidance on railway safety awareness could be considered good practice in all cases where operational railway activity takes place.
- G1.2.7 All employers are required under MHSWR to record, review and update risk assessments, and repeat training periodically where appropriate.
- G1.2.8 RUs are required under the Railways and Other Guided Transport System (Safety) Regulations 2006 (as amended) (ROGS) to make a suitable and sufficient assessment of the risks to the safety of any persons for the purpose of identifying the measures they need to take to ensure the safe operation of the transport system in question insofar as this is affected by their operation, such as not leaving equipment behind.
- G1.2.9 The Rail Accident Investigation Branch (RAIB) issued safety advice after a fatality at the Tyseley maintenance depot. This stated that duty holders should be aware that using GERT8000, the Rule Book, as the only basis of track safety training for train drivers and other operational staff is inappropriate because:
- a) The provisions of the Rule Book with respect to personal track safety are not applicable when working away from the mainline railway (such as in most depots, yards and sidings); and
 - b) The Rule Book contains no rules, regulations or instructions relating to passing between or close to the end of stationary rail vehicles.

G1.3 Health and safety responsibilities

- G1.3.1 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.

G1.4 Structure of this document

- G1.4.1 Guidance is provided as a series of sequentially numbered clauses.

G1.5 Approval and authorisation of this document

- G1.5.1 The content of this document was approved by the Traffic Operations and Management Standards Committee on 28 March 2023.
- G1.5.2 This document was authorised by RSSB on 28 April 2023.

Part 2 Guidance

G2.1 Medical fitness

Guidance

- G 2.1.1 Regulation 24 in the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (as amended) (ROGS) places a duty on RUs to have systems in place to identify any change in the fitness status of safety-critical workers.
- G 2.1.2 RIS-3451-TOM sets out the medical fitness requirements for train drivers.
- G 2.1.3 RIS-3452-TOM sets out the medical fitness requirements for those persons whose roles and responsibilities include:
- a) Train dispatch;
 - b) Shunting; and
 - c) Travelling as a competent person with a train driver.
- G 2.1.4 GOGN3655 gives guidance on medical fitness for railway safety-critical workers.
- G 2.1.5 Employers have responsibilities under The Health and Safety at Work etc. Act 1974 and regulations made under it to reduce any risk to the health, safety and welfare of their employees and the general public. It may be appropriate to consider the general medical fitness of non-safety-critical staff to ensure other staff, contractors, visitors and members of the public are kept safe on the operational railway.
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G2.2 Operational railway safety awareness - mainline

Guidance

- G 2.2.1 To help assess task-based risks on the mainline, it is good practice to identify:
- a) The activities required to be undertaken by individuals;
 - b) Local operational risks; and
 - c) Site-specific conditions.
- G 2.2.2 The railway has unique hazards and risks that all workers need to be aware of. Specific risks in one area of the mainline railway will differ from others, such as AC and DC electrified lines. Risks associated with tasks can be minimised through learning, assessment and competence management.
- G 2.2.3 [Appendix A.1](#) contains a list of hazards, conditions and control measures that can be considered.
- G 2.2.4 When designing operational railway safety awareness competence development activities, it is good practice to consider:
- a) Hazards;
 - b) Conditions; and
 - c) Control measures.

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- G 2.2.5 Using a risk-based training needs analysis (RBTNA) can help identify the level of skills and knowledge required, and align the needs of the learner and the business to reduce the risk.
- G 2.2.6 The Rail Safety and Standards Board (RSSB) has developed the RBTNA toolkit to assist those who design training, learning and assessment to analyse the relevant data objectively. The RSSB RBTNA is used in this guidance note, however, organisations could use other suitable RBTNA toolkits.
- G 2.2.7 When designing competence development activities, it is good practice to use approved standards that set out skills and knowledge requirements, such as National Occupational Standards (NOS), organisational standards and procedures, and the Rule Book. NOS are managed on behalf of the Government by Skills Development Scotland and are available on the National Occupational Standards website.
- G 2.2.8 When designing training activities, it is good practice to consider:
- a) If the training is about learning new skills and knowledge or refreshing existing skills and knowledge;
 - b) The format it will be delivered in, for example, classroom, e-learning or blended learning; and
 - c) That people learn in different ways.
- G 2.2.9 Examples of using the guidance in this section can be found in [Appendix B.1](#).
- G 2.2.10 An example of a safety-critical task can be found in [Appendix C](#).
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G2.3 Operational railway safety awareness - depots, sidings, yards and freight terminals

Guidance

- G 2.3.1 To help assess task-based risks at depots, sidings, yards, and freight terminals it is good practice to identify:
- a) The activities required to be undertaken by individuals;
 - b) Local operational risks; and
 - c) Site-specific conditions.
- G 2.3.2 The railway has unique hazards and risks that all workers need to be aware of. Risks associated with tasks can be minimised through learning, assessment and competence management.
- G 2.3.3 [Appendix A.2](#) contains a list of hazards, conditions and control measures that can be considered.
- G 2.3.4 See clause [G.2.2.4](#) to clause [G 2.2.8](#) for further guidance on this topic.
- G 2.3.5 Examples of using the guidance in this section can be found in [Appendix B.2](#).
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G2.4 Competence

Guidance

- G 2.4.1 All employers are required under the MHSWR to take into account their employees' capabilities as regards health and safety. In addition, ROGS places a duty on RUs to ensure that persons carrying out safety-critical work have been assessed as being competent and fit.
- G 2.4.2 It is good practice to have a Competence Management System (CMS) and procedures in place that set out standards and processes. These would include verification and documentation for ensuring that all staff have the appropriate competence (skills and knowledge) to determine whether a person has met a particular level of competence or ability to ensure that risks to their health and safety are managed.
- G 2.4.3 The Office of Rail and Road (ORR) has produced detailed guidance for managing competence in Railway Safety Publication 1 (RSP1). In the guidance, the ORR shows that competence management can be viewed as a cycle divided into principles and phases and provides additional guidance on non-technical skills.
- G 2.4.4 RSSB document RS100 provides practical advice about managing and contributing to competence development activities.
- G 2.4.5 RSSB research report T1207 (2022) contains resources to help managers, trainers, assessors, and front-line staff use non-technical skills.
- G 2.4.6 When establishing requirements for the CMS, it is good practice to identify:
- a) The activities to be undertaken;
 - b) The risks associated with the activities or location - examples are outlined in [Table 1 in Appendix A](#) and [Table 2 in Appendix A](#);
 - c) Performance requirements - clearly stating what individuals need to do when operating in or around the railway environment;
 - d) Knowledge requirements - clearly stating what individuals need to know when operating in or around the railway environment;
 - e) The non-technical skills requirements - the cognitive, social, and personal resource skills that complement technical skills;
 - f) The standard of skills and knowledge required to be deemed competent; and
 - g) The expected expiry of competence.
- G 2.4.7 When defining competence requirements, it is good practice to use approved standards that set out skills and knowledge requirements, such as National Occupational Standards, and organisational standards.
- G 2.4.8 When training has been completed, candidates can demonstrate competence in either a written or practical assessment.
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G2.5 Assessment

Guidance

- G 2.5.1 Following training, candidates are expected to demonstrate they possess the required skills and knowledge to keep themselves and others safe on the operational railway. The method of assessment depends on the competence requirements and risks involved as defined by the RBTNA used by the organisation.
- G 2.5.2 It is a ROGS requirement to continually assess people through the assessment process and have systems in place to maintain competence.
- G 2.5.3 The ORR guidance document RSP1 details suitable methods for assessing competence, using defined risk-based methods, and for managing those staff who are 'not yet competent'.
- G 2.5.4 RSSB document RS100 provides practical guidance for assessment methods, including an appendix of guidance specifically for assessors.
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G2.6 Review

Guidance

- G 2.6.1 It is good practice to review training and competence processes routinely to make sure they remain fit for purpose.
- G 2.6.2 The MHSWR sets out that an individual's training should be reviewed as a minimum:
- a) When being recruited into the employer's organisation; and
 - b) When being exposed to new or increased risks because of:
 - i) Being transferred or given a change of responsibilities;
 - ii) The introduction of new work equipment into or a change respecting work equipment already in use;
 - iii) The introduction of new technology; or
 - iv) The introduction of a new system of work into or a change respecting a system of work already in use.
- G 2.6.3 RUs have a responsibility under ROGS to review the tasks of the individual to make sure any additional training required is provided.
- G 2.6.4 The ORR document RSP1 gives guidance for verifying, auditing and reviewing the assessment process to confirm it remains fit for purpose.
- G 2.6.5 RSSB document RS100 details when evaluation of learning events may be needed. It is good practice to take this into account when reviewing competence assessments.
-

Appendices

Appendix A Factors for consideration

A.1 Hazards and control measures - mainline

Examples

A.1.1 When developing operational railway safety awareness training for the mainline railway, it is good practice to consider hazards and sources of control measures such as those described in [Table 1](#).

A.1.2 This list is not exhaustive. The organisation may identify other hazards and control measures based on their requirements.

A.1.3	Hazard	Source of Control Measure
	Train movements (various speeds)	a) GERT8000-G1; b) Standard operating procedures (SOPs); c) Safety-critical communication protocols; d) Safe work packs (SWPs); e) Risk assessments; and f) Personal protective equipment (PPE).
	Electricity	a) GERT8000-AC, GERT8000-DC; b) Signage; c) SOPs; d) SWPs; e) Risk assessments; and f) PPE.
	Slip, trip and fall hazards	a) GERT8000-G1; b) SOPs; c) SWPs; d) Signage; and e) PPE.
	Areas of limited clearance	a) SOPs; b) SWPs; and c) Signage.
	Rail infrastructure	a) GERT8000-G1, GERT8000-M3; b) Signage; c) SOPs; and d) Safety-critical communication protocols.

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Hazard	Source of Control Measure
Noise	a) SOPs; and b) Risk assessments.
Road vehicles adjacent to the line and on level crossings	a) SOPs; b) Signage; and c) Safety-critical communication protocols.
Rail vehicles left on the running line	a) GERT8000-TW1, GERT8000-S4; b) SOPs; and c) Safety-critical communication protocols.
Maintenance activity - rail infrastructure	a) GERT8000-G1; b) Signage; c) SOPs; d) Safety-critical communication protocols; and e) Risk assessments.
Maintenance activity - rail vehicles	a) GERT8000-G1; b) Signage; c) SOPs; d) Safety-critical communication protocols; and e) Risk assessments.
Obstructions on the running line	a) GERT8000-G1, GERT8000-M1, GERT8000-M3; b) Signage; c) SOPs; and d) Safety-critical communication protocols.
Accident and emergencies	a) GERT8000-G1, GERT8000-M1, GERT8000-M3; b) Risk assessments; c) SOPs; d) Signage; and e) Safety-critical communication protocols.
Distractions	a) GERT8000-G1; b) SOPs; and c) Risk assessments.

Table 1: Mainline hazards and control measures

A.1.4

The Rule Book is a level of hazard mitigation or control measure but other hazards may not be covered by the Rule Book. Organisations may have to look at wider company instructions for these.

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- A.1.5 GEGN8575 provides railway undertakings and infrastructure managers (station operators) with guidance on the management and assessment of electrical risk arising from exposed live parts when undertaking day-to-day operational tasks on AC and DC electrified lines on the GB mainline railway.

A.2 Hazards and control measures - depots, sidings, yards and freight terminals

Examples

- A.2.1 When developing operational railway safety awareness training for depots, sidings, yards and freight terminals, it is good practice to consider hazards and sources of control measures such as those described in [Table 2](#).
- A.2.2 This list is not exhaustive. The organisation may identify other hazards and control measures based on their requirements.

A.2.3

Hazard	Source of control measure
Train movements - propelling, forward (various speeds)	a) GERT8000-G1; b) Local instructions; c) Safety-critical communication protocols; d) Safe work packs (SWPs); e) Risk assessments; f) Personal protective equipment (PPE); and g) Depot protection systems.
Electricity	a) GERT8000-AC, GERT8000-DC; b) Signage; c) SOPs; d) SWPs; e) Risk assessments; and f) PPE.
Plant and equipment	a) Local instructions; b) SOPs; and c) Risk assessments.
Road vehicles adjacent to the line and on level crossings	a) Signage; b) SOPs; c) SWPs; d) Risk assessments; and e) PPE.

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Hazard	Source of control measure
Slip, trip and fall hazards	a) GERT8000-G1; b) SOPs; c) SWPs; d) Signage; and e) PPE.
Areas of limited clearance	a) SOPs; b) SWPs; and c) Signage.
Dust	a) Local instructions; b) SOPs; c) Risk assessments; and d) PPE.
Noise	a) Local instructions; b) SOPs; c) Risk assessments; and d) PPE.
Loading and unloading activity	a) Local instructions; b) SOPs; and c) Risk assessments.
Fouling points	a) Local instructions; b) SOPs; and c) Risk assessments.
Points	a) Local instructions; b) SOPs; and c) Risk assessments.
Visual obstructions	a) GERT8000-G1; b) SOPs; and c) SWPs.
Obstruction on the running rail	a) GERT8000-G1, GERT8000-M1, GERT8000-M3; b) Local instructions; c) SOPs; and d) Risk assessments.

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Hazard	Source of control measure
Blocked or fouled walking routes	a) SOPs; b) SWPs; and c) Signage.
Distractions	a) Local instructions; b) SOPs; and c) Risk assessments.

Table 2: Depots, sidings, yards, freight terminal hazards and control measures

A.2.4 The Rule Book is a level of hazard mitigation or control measure but other hazards may not be covered by the Rule Book. Organisations may have to look at wider company instructions for these.

A.2.5 GEGN8575 provides railway undertakings and infrastructure managers (station operators) with guidance on the management and assessment of electrical risk arising from exposed live parts when undertaking day-to-day operational tasks on AC and DC electrified lines on the GB mainline railway.

A.3 Conditions

Examples

A.3.1 When developing training for mainline operational railway safety awareness, it is good practice to recognise how conditions can change hazards.

A.3.2 A hazard that could be a minor hazard in daylight, such as ballast, could become a major hazard in the dark.

A.3.3 This list is not exhaustive. The organisation may identify other conditions based on their requirements.

A.3.4 Conditions for consideration could be:

- a) Poor lighting;
- b) Darkness;
- c) Poor visibility;
- d) Weather conditions;
- e) Underfoot conditions;
- f) Frequency of train movements;
- g) Noise;
- h) Dust;
- i) Safety fences;
- j) Fuel spills or other contamination;
- k) Locations, such as pits;
- l) Working from heights;
- m) Extreme cold weather; and
- n) Level of activity on or around the railway environment.

Appendix B Framework Examples

B.1 Mainline examples

Example activity

- B.1.1 This section shows typical activity examples that may be required on the mainline railway as part of an employee's duties.
- B.1.2 Employee A - Passenger mainline driver that drives three different routes on different types of trains. Activities involve:
- a) Infrequent working on a large train care depot;
 - b) The use of walking routes to access and prepare rail vehicles for service;
 - c) Potentially passing between stabled trains;
 - d) The use of safety-critical communication applying railway standards and protocols;
 - e) Working on an infrastructure manager (IM) managed mainline where the maximum speed is 200 km/h (125 mph); and
 - f) Walking or working with the risks of AC overhead line equipment (OLE).
- B.1.3 Manager A - A frontline railway undertaking operations manager. Activities involve:
- a) Responding to out-of-course events on an IM managed mainline that could include acting as a Train Operations Liaison Officer (TOLO);
 - b) Completing competence assessment of frontline safety-critical workers that could include mainline drivers and ground staff; and
 - c) Attendance at regular site meetings on IM managed mainline that could include signal sighting committees and site safety inspections and tours.

Example minimum training requirements

- B.1.4 The RBTNA concluded for this example that it would be good practice to deliver the following operational railway safety awareness training to 'Employee A - passenger mainline driver', as a minimum, for the mainline activity detailed in [B.1.2](#).

B.1.5	Training Module	Example Reference Documentation
	Suitably prepared for duty within a rail operations environment.	a) GERT8000-G1; and b) Organisational procedures and policies.
	Adopts and maintains personal safety and security in a rail operations environment.	a) GERT8000-G1, GERT8000-AC, GERT8000-SS2, GERT8000-TW1; b) Organisational procedures and policies; and c) Local depot working instructions.
	Communicates and delivers safety-critical information.	a) GERT8000-G1, RS523; b) Organisational procedures and policies; and c) Sectional Appendix.

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Training Module	Example Reference Documentation
Responds to out-of-course or emergency situations.	a) GERT8000-G1, GERT8000-AC, GERT8000-M1, GERT8000-M2, GERT8000-M3, GERT8000-TW1, GERT8000-TW5; b) Organisational procedures and policies; and c) Sectional Appendix.
Applies effective emergency protection.	a) GERT8000-G1, GERT8000-AC, GERT8000-M1, GERT8000-M2; and b) Organisational procedures and policies.
Maintains and develops knowledge, understanding and skills.	a) Organisational procedures and policies.

Table 3: Minimum training - Employee A - mainline driver

B.1.6 The RBTNA concluded for this example that it would be good practice to deliver the following operational railway safety awareness training to 'Manager A - railway undertaking operations manager', as a minimum for the mainline activity detailed in [B.1.3](#). It is important to note that the training list is similar to that of the mainline driver, however, the risks associated with these activities will vary depending on the frequency that they are carried out and therefore the method of training may be different.

B.1.7

Training Module	Example Reference Documentation
Suitably prepared for duty within a rail operations environment.	a) GERT8000-G1; and b) Organisational procedures and policies.
Adopts and maintains personal safety and security in a rail operations environment.	a) GERT8000-G1, GERT8000-AC, GERT8000-SS2, GERT8000-TW1; and b) Organisational procedures and policies.
Communicates and delivers safety-critical information.	a) Rule Book modules GERT8000-G1, RS523; b) Organisational procedures and policies. Sectional Appendix.
Responds to out-of-course or emergency situations.	a) GERT8000-G1, GERT8000-AC, GERT8000-M1, GERT8000-M2, GERT8000-M3, GERT8000-TW1, GERT8000-TW5; b) Organisational procedures and policies; and c) Sectional Appendix.
Applies effective emergency protection.	a) GERT8000-G1, GERT8000-AC, GERT8000-M1, GERT8000-M2; and b) Organisational procedures and policies.

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Training Module	Example Reference Documentation
Maintains and develops knowledge, understanding and skills.	a) Organisational procedures and policies.

Table 4: Minimum training - Manager A - RU operations manager

Example competence criteria - performance and knowledge

- B.1.8 This section shows examples of competence requirements for two of the training modules identified in [Table 3](#) for 'Employee A - Passenger mainline driver'.
- B.1.9 The RBTNA concluded for this example that it would be good practice to consider the following performance and knowledge requirements when assessing competence for the module 'suitably prepared for duty within a rail operations environment'.

B.1.10	Performance Requirements
	<ul style="list-style-type: none">a) Meets the industry standards in drugs and alcohol policy;b) Takes action so is suitably rested and free from fatigue;c) Takes action so that medical standards are achieved and adhered to;d) Takes action to meet the organisation's standards for appearance and conduct;e) Complies with the organisation's procedures relating to personal safety;f) Possesses and uses the required documentation, equipment and PPE correctly;g) Accesses and confirms information relating to the work to be undertaken;h) Completes preparation for duty within the allocated time correctly; andi) Completes booking off from duty correctly, submitting required documents as required.

Table 5: Performance requirements 1 - Employee A - passenger mainline driver

B.1.11

Knowledge Requirements
<ul style="list-style-type: none">a) Can explain organisational drugs and alcohol policy;b) Can explain the impact of fatigue, associated risk and fatigue management policies and procedure;c) Can explain organisational standards in medical fitness, medication reporting procedure, wearing of prescribed glasses and hearing devices or aids;d) Can explain the standards of appearance and conduct required;e) Demonstrates understanding and can explain information that is relevant to the task and location, for example, the Sectional Appendix and Rule Book modules;f) Can explain documentation, including the importance of submitting them in a timely manner, equipment and PPE required;g) Can explain relevant sources of information and importance of checking details correctly;h) Can explain the procedures relating to booking on and booking off duty; andi) Can explain the duties that are to be undertaken and procedures relating to them.

Table 6: Knowledge requirements 1 - Employee A - passenger mainline driver

B.1.12

The RBTNA concluded for this example that it would be good practice to consider the following performance and knowledge requirements when assessing competence for the module 'Communicates and delivers safety-critical information'.

B.1.13

Performance Requirements
<ul style="list-style-type: none">a) Communicates information applying rail industry safety-critical communications protocols;b) Delivers messages accurately, briefly and clearly (ABC);c) Receives information and confirms clear understanding;d) Takes correct actions when information received or delivered is unclear or ineffective;e) Relays written information legibly;f) Correctly uses handsignals;g) Correctly uses lineside telephones; andh) Correctly and safely uses radios and personal electronic devices.

Table 7: Performance requirements 2 - Employee A - passenger mainline driver

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B.1.14

Knowledge Requirements
<ul style="list-style-type: none">a) Understands terminology and techniques to be used and explains communication protocols;b) Understands the importance of confirming an understanding;c) Understands actions to be taken when messages are unclear and reporting poor communication protocols;d) Understands the importance of clear and legible written information;e) Explains use of handsignals both in daylight and poor visibility at night, risks and controls associated with the use of handsignals;f) Explains types of lineside communication equipment and controls when using this equipment;g) Understands relevant rules around using personal electronic devices trackside and the organisation's procedures relating to them; andh) Understands how to deliver a message using radios including establishing the identity of callers, checking equipment, possible hazards and controls.

Table 8: Knowledge requirements 2 - Employee A - passenger mainline driver

B.1.15

This section shows examples of competence requirements for two of the training modules identified in [Table 4](#) for 'Manager A - railway undertaking operations manager'.

B.1.16

The RBTNA concluded for this example that it would be good practice to consider the following performance and knowledge requirements when assessing competence for the module 'suitably prepared for duty within a rail operations environment'.

B.1.17

Performance Requirements
<ul style="list-style-type: none">a) Meets the industry standards in drugs and alcohol policy;b) Takes action so is suitably rested and free from fatigue;c) Takes action so that medical standards are achieved and adhered to;d) Takes action to meet the organisation's standards for appearance and conduct;e) Possesses the required documentation and equipment as specified;f) Correctly identifies the hazards associated with the rail environment;g) Accesses and confirms information relating to the work to be undertaken;h) Completes preparations for duty within the allocated time; andi) Complies with the organisation's procedures relating to personal safety.

Table 9: Performance requirements 3 - Manager A - RU operations manager

B.1.18

Knowledge Requirements
<ul style="list-style-type: none"> a) Can explain organisational drugs and alcohol policy; b) Can explain impact of fatigue, associated risk and fatigue management policies and procedure; c) Can explain organisational standards in medical fitness, medication reporting procedure, wearing of prescribed glasses and hearing devices or aids; d) Can explain the standards of appearance and conduct required; e) Can explain the type of equipment required for duty and is competent to use equipment; f) Can explain hazards within the rail environment, how to control and report hazards and near misses applying organisation's procedure; g) Demonstrates understanding and can explain information that is relevant to the task and location, for example safe system of work; h) Can explain the procedures relating to booking on and booking off duty, equipment and PPE; and i) Can explain the duties that are to be undertaken and the organisation's procedures relating to them.

Table 10: Knowledge requirements 3 - Manager A - RU operations manager

B.1.19

The RBTNA concluded for this example that it would be good practice to consider the following performance and knowledge requirements when assessing competence for the module '**Communicates and delivers safety-critical information**'.

B.1.20

Performance Requirements
<ul style="list-style-type: none"> a) Communicates information applying rail industry safety-critical communications protocols; b) Delivers an emergency call in line with procedures; c) Takes action to confirm messages are understood and agreed; d) Takes correct actions when information received or delivered is unclear or ineffective; e) Communicates information at an appropriate time and place; f) Stores information so that it can be promptly retrieved when required; g) Presents information in a way that can be clearly understood; h) Collects and updates specified information as and when required; i) Prioritises the nature of the information and responds accordingly; j) Maintains confidentiality of information according to relevant rules, regulations, instructions and procedures; k) Correctly uses the phonetic alphabet when delivering safety-critical information; l) Delivers messages accurately, briefly and clearly (ABC); m) Correctly uses lineside telephones; n) Correctly uses radios; and o) Correctly uses handsignals.

Table 11: Performance requirements 4 - Manager A - RU operations manager

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B.1.21

Knowledge Requirements
<ul style="list-style-type: none">a) Understands terminology to be used and explains protocols;b) Can explain contents of an emergency call and describes who and when to make a call to;c) Understands the need to repeat the message and contents of a task brief;d) Understands actions to be taken when messages are unclear and how to report poor communication protocol;e) Explains and can demonstrate the phonetic alphabet and use of numbers;f) Explains risk of delivering too much information or overly complicated messages;g) Explains types of lineside communication equipment, warning and limited clearance signs and controls when using this equipment;h) Understands how to deliver a message using radios including establishing the identity of callers, checking equipment, possible hazards and controls; andi) Explains use of handsignals both in daylight and poor visibility at night, risks and controls associated with use of handsignals.

Table 12: Knowledge requirements 4 - Manager A - RU operations manager

B.2 Depot, sidings, yards and freight terminals examples

Activity

- B.2.1 This section shows typical activity examples that may be required in depots, sidings, yards and freight terminals as part of an employee's duties.
- B.2.2 Employee B - Train presentation cleaner based at a large, very busy train care depot where there are lots of train movements in the evening but few during the day. Activities involve:
- a) Daily working on the depot where there are various traction types with a maximum speed of 10 km/h (5 mph);
 - b) The use of walking routes to access rail vehicles; and
 - c) Working alongside, but not on IM managed mainline, up and down lines.
- B.2.3 Contractor A - Person responsible for the loading of freight trains based at a quarry where there are multiple train movements up to a speed of 10 km/h (5 mph) and propelling movements at a speed of 5 km/h (3 mph). Road vehicles, plant and equipment operations are also performed within the railway environment. There is no requirement to access IM managed mainline operations and access is strictly controlled. Activities involve:
- a) Daily interaction with moving rail vehicles within the confines of a private yard or siding;
 - b) The use of walking routes to access rail vehicles;
 - c) The use of safety-critical communication applying railway standards and protocols; and
 - d) Safe loading and unloading of rail freight vehicles to rail industry standards.

Example minimum training requirements

B.2.4 The RBTNA concluded for this example that it would be good practice to deliver the following operational railway safety awareness training to 'Employee B - train presentation cleaner', as a minimum, for the activity applicable to depots, sidings, yards and freight terminals as detailed in [B.2.2](#)

B.2.5	Employee B - train presentation cleaner	Example Reference Documentation
	Suitably prepared for duty within a rail operations environment.	a) GERT8000-G1; and b) Organisational procedures and policies.
	Adopts and maintains personal safety and security in a rail operations environment.	a) GERT8000-G1, GERT8000-TW1; b) Organisational procedures and policies; and c) Local depot working instructions.
	Communicates and delivers safety-related information.	a) GERT8000-G1; and b) Organisational procedures and policies.
	Responds to out-of-course or emergency situations.	a) GERT8000-G1; and b) Organisational procedures and policies.
	Maintains and develops knowledge, understanding & skills.	a) Organisational procedures and policies.

Table 13: Minimum training - Employee B - train presentation cleaner

B.2.6 The RBTNA concluded for this example that it would be good practice to deliver the following operational railway safety awareness training to 'Contractor A - person responsible for loading freight trains', as a minimum, for the activity applicable to depots, sidings, yards and freight terminals as detailed in [B.2.3](#). It is important to note that the training list is similar to that of the train presentation cleaner, however, the risks associated with these activities will vary depending on the frequency that they are carried out and therefore the method of training may be different.

B.2.7	Contractor A - person responsible for loading freight trains	Example Reference Documentation
	Suitably prepared for duty within a rail operations environment.	a) Organisational procedures and policies.
	Adopts and maintains personal safety and security in a rail operations environment.	a) GERT8000-G1, GERT8000-TW1; and b) Organisational procedures and policies.

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Contractor A - person responsible for loading freight trains	Example Reference Documentation
Communicates and delivers safety-critical information.	a) GERT8000-G1; and b) Organisational procedures and policies.
Responds to out-of-course or emergency situations.	a) GERT8000-G1; and b) Organisational procedures and policies.
Maintains and develops knowledge, understanding and skills.	a) Organisational procedures and policies.

Table 14: Minimum training - Contractor A - person responsible for loading freight trains

Example competence criteria

- B.2.8 This section shows examples of competence requirements for two of the training modules identified in [Table 9](#) for 'Employee B - train presentation cleaner'.
- B.2.9 The RBTNA concluded for this example that it would be good practice to consider the following performance and knowledge requirements when assessing competence for the module 'suitably prepared for duty within a rail operations environment'.

B.2.10	Performance Requirements
	a) Meets the industry standards in drugs and alcohol policy; b) Takes action so is suitably rested and free from fatigue; c) Takes action to meet the organisation's standards for appearance and conduct; d) Complies with the organisation's procedures relating to personal safety; e) Possesses and uses the required documentation, equipment and PPE correctly; and f) Accesses and confirms information relating to the work to be undertaken.

Table 15: Performance requirements 1 - Employee B - train presentation cleaner

B.2.11

Knowledge Requirements
<ul style="list-style-type: none"> a) Can explain organisational drugs and alcohol policy; b) Can explain the impact of fatigue, associated risk and fatigue management policies and procedure; c) Can explain the standards of appearance and conduct required; d) Can explain organisational standards in medical fitness, medication reporting procedure, wearing of prescribed glasses and hearing devices or aids; e) Understands and can explain the standards and importance of personal safety required by the organisation; and f) Can explain the documentation, equipment and PPE required.

Table 16: Knowledge requirements 1 - Employee B - train presentation cleaner

B.2.12

The RBTNA concluded for this example that it would be good practice to consider the following performance and knowledge requirements when assessing competence for the module 'Communicates and delivers safety-related information'.

B.2.13

Performance Requirements
<ul style="list-style-type: none"> a) Delivers messages accurately, briefly and clearly (ABC); b) Receives information and confirms clear understanding; c) Correctly uses handsignals; and d) Correctly and safely uses personal electronic devices.

Table 17: Performance requirements 2 - Employee B - train presentation cleaner

B.2.14

Knowledge Requirements
<ul style="list-style-type: none"> a) Understands terminology and techniques to be used and explains communication protocols; b) Understands the importance of confirming an understanding; c) Explains use of handsignals both in daylight and poor visibility at night, risks and controls associated with the use of handsignals; and d) Understands relevant rules around using personal electronic devices trackside.

Table 18: Knowledge requirements 2 - Employee B - train presentation cleaner

B.2.15

This section shows examples of competence requirements for two of the training modules identified in [Table 10](#) for 'Contractor A - person responsible for loading freight trains'.

B.2.16

The RBTNA concluded for this example that it would be good practice to consider the following performance and knowledge requirements when assessing competence for the module 'suitably prepared for duty within a rail operations environment'.

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B.2.17

Performance Requirements
<ul style="list-style-type: none">a) Meets the industry standards in drugs and alcohol policy;b) Takes action so is suitably rested and free from fatigue;c) Takes action so that medical standards are achieved and adhered to;d) Takes action to meet the organisation's standards for appearance and conduct;e) Possesses the required documentation and equipment as specified;f) Correctly identifies the hazards associated with the rail environment;g) Accesses and confirms information relating to the work to be undertaken;h) Completes preparations for duty within the allocated time; andi) Complies with the organisation's procedures relating to personal safety.

Table 19: Performance requirements 3 - Contractor A - person responsible for loading freight trains

B.2.18

Knowledge Requirements
<ul style="list-style-type: none">a) Can explain organisational alcohol & drugs policy;b) Can explain impact of fatigue, associated risk and fatigue management policies and procedure;c) Can explain organisational standards in medical fitness, medication reporting procedure, wearing of prescribed glasses and hearing devices or aids;d) Can explain the standards of appearance and conduct required;e) Can explain the type of equipment required for duty and is competent to use equipment;f) Can explain hazards within the rail environment, how to control and report hazards and near misses applying organisation's procedure;g) Demonstrates understanding and can explain information that is relevant to the task and location, for example safe system of work;h) Can explain the procedures relating to booking on and booking off duty, equipment and PPE; andi) Can explain the duties that are to be undertaken and the organisation's procedures relating to them.

Table 20: Knowledge requirements 3 - Contractor A - person responsible for loading freight trains

B.2.19

The RBTNA concluded for this example that it would be good practice to consider the following performance and knowledge requirements when assessing competence for the module 'Communicates and delivers safety-critical information'.

B.2.20

Performance Requirements
<ul style="list-style-type: none">a) Communicates information applying rail industry safety-critical communications protocols;b) Delivers an emergency call in line with procedures;c) Takes action to confirm messages are understood and agreed;d) Communicates information at an appropriate time and place;e) Stores information so that it can be promptly retrieved when required;f) Presents information in a way that can be clearly understood;g) Collects and updates specified information as and when required;h) Prioritises the nature of the information and responds accordingly;i) Maintains confidentiality of information according to relevant rules, regulations, instructions and procedures;j) Correctly uses the phonetic alphabet when delivering safety-critical information;k) Delivers messages accurately, briefly and clearly (ABC); andl) Correctly uses radios.

Table 21: Performance requirements 4 - Contractor A - person responsible for loading freight trains

B.2.21

Knowledge Requirements
<ul style="list-style-type: none">a) Understands terminology to be used and explains protocols;b) Can explain contents of an emergency call and describe who and when to make a call to;c) Understands the need to repeat the message and contents of a job brief;d) Understands actions to be taken when messages are unclear and reporting poor communication protocol;e) Explains and can demonstrate the phonetic alphabet and use of numbers;f) Explains risk of delivering too much information or overly complicated messages; andg) Understands how to deliver a message using radios including establishing the identity of callers, checking equipment, possible hazards and controls.

Table 22: Knowledge requirements 4 - Contractor A - person responsible for loading freight trains

Appendix C Critical tasks

C.1 Critical tasks example

Retrieving items from the line

- C.1.1 Some tasks that railway operations staff will do may be high-risk and hazardous. To keep operations staff safe, it is, therefore, important to assess the risks of these tasks and manage them appropriately. This relates to all staff who may be affected and not just those deemed safety critical.
- C.1.2 ROGS sets out safety-critical work requirements.
- C.1.3 The tasks that staff carry out determine if they are classed as safety-critical staff. Regulation 23 in the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (as amended) (ROGS) defines safety-critical tasks.
- C.1.4 Tasks that are defined by ROGS as safety-critical tasks are required to be competence-assessed, and staff must undergo a safety-critical medical to be able to carry these tasks out.
- C.1.5 The following is an example of a task where it may be difficult to determine whether the staff carrying it out are deemed to be safety-critical. A passenger has dropped an item, such as a mobile phone, onto the railway line. There could be a risk that if a trained staff member does not go onto the track to collect the item, the passenger may take it upon themselves to access the track.
- C.1.6 The sections listed within the definition of 'safety critical task' in ROGS that could apply to this task are in Regulation 23(1):
- a) '(a)(ii) Signalling, and signalling operations, the operation of level crossing equipment, receiving and relaying of communications or any other activity which is capable of controlling or affecting the movement of that vehicle';
 - b) '(b)(iii) Receiving and relaying of communications'; or
 - c) '(b)(iv) Any person ensuring the safety of any persons working on or near to the track, whether or not the persons working on or near to the track are carrying out safety-critical work'.
- C.1.7 Working through each of these sections helps to determine if they apply to the staff member accessing the track to collect the belongings.

Applicable ROGS section	Application to staff member in question
In relation to a vehicle used on a transport system - Regulation 23(1)(a)(ii) signalling, and signalling operations, the operation of level crossing equipment, receiving and relaying of communications or any other activity which is capable of controlling or affecting the movement of that vehicle.	The signaller is responsible for carrying out this task, not the station staff. The station staff asks the signaller to stop the trains but the signaller controls the movement.

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Applicable ROGS section	Application to staff member in question
In relation to a transport system - Regulation 23(1)(b)(iii) receiving and relaying of communications.	The signaller takes the lead in the communication to control the movement of the train, confirm the line block is in place and that the staff member can access the track.
In relation to a transport system - Regulation 23(1)(b)(iv) any person ensuring the safety of any persons working on or near to the track, whether or not the persons working on or near to the track are carrying out safety-critical work.	The signaller ensures the safety of the station staff accessing the track. The task would become a safety-critical task if the station staff gave someone else the authority to access the track.

Table 23: Applying ROGS sections to safety critical task

C.1.8 See the example flowchart in [Figure 1](#).

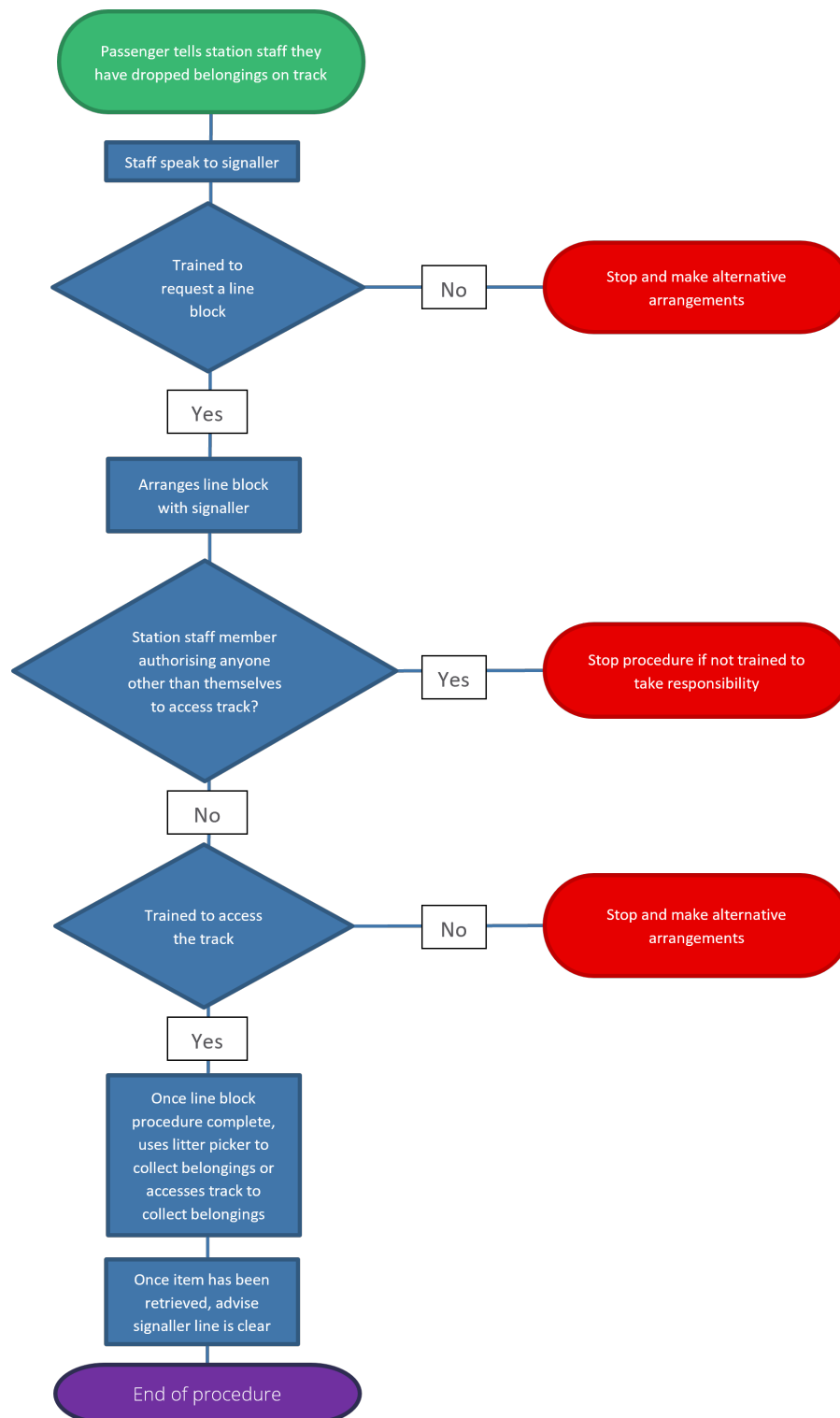


Figure 1: Task - Access track to collect passenger belongings

C.1.9

This particular task has been assessed as a task that all staff could do after a robust risk assessment and the correct training.

Definitions

competence	The state, or quality, of being adequately qualified and skilled to be able to perform a specific act or task. Demonstrated personal attributes and demonstrated ability to apply knowledge and skills.
Competence Management System	A system that ensures that those undertaking work have, and continue to have, the competence required to do it.
competent person	A person who has passed as being qualified and has the required knowledge and skills to carry out a particular rule, regulation, instruction or procedure.
depot	A building or buildings in which train maintenance, servicing or repair takes place. This also includes any sidings within the depot boundary.
GB mainline railway	'Mainline railway' has the meaning given to it in the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (as amended) and the associated exclusions. 'GB mainline railway' is the mainline railway network excluding any railway in Northern Ireland, the Channel Tunnel, the dedicated high-speed railway between London St Pancras International Station and the Channel Tunnel, and any other exclusions determined by the Secretary of State.
good practice	A process or method that has been shown to work well; succeeds in achieving its objective(s); is widely accepted; and therefore can be recommended as an approach.
hazard	A condition that could lead to an accident. Source: <i>CSM RA</i>
Health and Safety Executive (HSE)	No definition.
infrastructure manager [network]	The person who: <ul style="list-style-type: none">a) In relation to infrastructure, other than a station, is responsible for developing and maintaining that infrastructureb) Manages and uses that infrastructure, or permits it to be used, for the operation of a vehicle
Office of Rail and Road (ORR)	The independent safety and economic regulator for Britain's railways.
on or near the line	Within 3 m of the nearest rail of any line, and on the line itself. On a platform the term 'on or near the line' applies only to the part of the platform within 1.25 m of the platform edge and only when an engineering or technical activity is taking place. Source: <i>RIS-3279-TOM</i>

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Rail Accident Investigation Branch (RAIB)	No definition.
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>
risk assessment	The overall process comprising a risk analysis and a risk evaluation. Source: <i>CSM RA</i>
ROGS	Railways and Other Guided Transport Systems (Safety) Regulations 2006 (as amended).
safety critical	Directly influencing safety (when applied to equipment or systems).
safety critical task	As defined in <i>ROGS Regulation 23</i> .
safety critical work	As defined in <i>ROGS Regulation 23</i> .

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

GEGN8575	Guidance Note on the Management of Electrical Risk Related to Operational Tasks on Electrified Lines
GERT8000	The Rule Book
GOGN3655	Guidance on Medical Fitness for Railway Safety Critical Workers
RIS-3451-TOM	Train Drivers – Suitability and Medical Fitness Requirements
RIS-3452-TOM	Train movement - Medical Fitness Requirements
RSSB RBTNA Tool	Risk-Based Training Needs Analysis
RS100	Good Practice Guide on Competence Development
RS523	GSM-R Handbook
T1207 (2022)	Enhancing the integration of non-technical skills into competence management systems

Other references

Rail Accident Investigation Branch	Report 09/2020: Fatal accident at Tyseley depot
ROGS	The Railway and Other Guided Transport Systems (Safety) Regulations 2006 (as amended)
UK Standards	National Occupational Standards
The Office of Rail and Road	Developing and maintaining staff competence - Railway Safety Publication 1 (RSP1)
The Health and Safety at Work etc. Act 1974	
The Management of Health and Safety at Work Regulations 1999	