

SAFETY CRITICAL TASKS- CLARIFICATION OF ROGS REGULATIONS REQUIREMENTS

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OFFICE OF RAIL REGULATION



OFFICE OF **RAIL REGULATION**

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The guide is intended to help people who may be affected by the Regulations to understand what the Regulations require. It is a simple explanation of the main provisions of the Regulations.

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INTRODUCTION

AIM

1. This guidance is aimed at those responsible for managing and controlling people who carry out safety critical tasks in the railway and associated industries. The guidance, clarifying the tasks that should be regarded as safety critical, is presented in a number of tables in Annex A. The tasks shown in the tables are illustrative; they are not exhaustive lists nor are they definitive. If there is any doubt further clarification should be obtained from the Office of Rail Regulation.
2. The guidance replaces the Health and Safety Commission's guidance published in 1999 *Guidance on the definition of activities regarded as safety critical under the Railways (Safety Critical Work) Regulations 1994*.

LEGISLATION

3. The Railways and Other Guided Transport Systems (Safety) Regulations 2006¹ (ROGS Regulations) impose prohibitions and requirements in relation to safety on railways and other guided transport systems. These include the infrastructure and operation of main line railways, metros, tramways, heritage railways and tramways and other guided transport systems.
4. Part 4 of the ROGS Regulations, which replaces the Railways (Safety Critical Work) Regulations 1994, sets out safety critical work requirements. ROGS introduces some new terms, and specifically the new role of "Controller of Safety Critical Work". Every controller of safety critical work is required, so far as is reasonably practicable, to ensure that a person under their management, supervision or control who carries out safety critical work has been assessed as competent and fit to carry out that work (Regulation 24). There must be an accurate and up to date record of assessment and this must be made available for inspection on reasonable demand. There should be arrangements in place for monitoring the competence and fitness of individuals. The controller of safety critical work should also

ensure that safety critical workers are not so fatigued that their health or safety or the health or safety of others could be significantly affected (Regulation 25).

INTERPRETATION OF TERMS

5. In the ROGS Regulations many words and terms are defined in Regulations 2 and 23 for use in these Regulations. The following terms are particularly relevant to safety critical work and some additional guidance is available in the ORR document *ROGS – Guidance on Safety Critical Work Terms*²
- **assessor** means any person who is competent to make an impartial and objective assessment of another person's competence or fitness to carry out safety critical work (Regulation 23);
 - **controller of safety critical work** means any person controlling the carrying out of safety critical work on a transport system or in relation to a vehicle used on a transport system (Regulation 23);
 - **fitness** means physical and mental fitness (Regulation 23);
 - **installation** includes the installation, examination or testing of components (Regulation 23);
 - **maintenance** includes repair work, reconditioning, examination, testing or alteration (Regulation 23);
 - **safety critical tasks** are listed in Regulation 23 and these are reproduced in Annex A, together with clarification of the tasks given in the tables;
 - **transport system** (Regulation 2) includes a siding where ROGS Part 4 on Safety Critical Work applies; and
 - **vehicle** includes a mobile traction unit (Regulation 2). The safety critical tasks relevant to vehicles used on a transport system include 'maintenance', 'installation of components' and 'checking that the vehicle is working properly' (Regulation 23). In this guidance vehicle covers a locomotive, whether controlled from within or remotely, a multiple unit, a light rail vehicle, a tram, a road/rail vehicle on the running line, an on-track machine (OTM, including on-track plant) and an unpowered vehicle, including those for use by passengers or for freight. The ROGS Guidance on Regulations³ includes further details on the meaning of 'maintenance' and 'installation of components'.

COMPETENCE

6. ROGS Regulation 24(1) requires that every controller of safety critical work ensures that persons carrying out safety critical work have been assessed as being competent and fit to carry out the work. ORR has revised and published the guidance *Developing and Maintaining Staff Competence, RSP14*. This guidance provides a structured, risk-based approach for developing competence standards and using these to develop and assess competence.
7. More generally the assessment of competence is not just for safety critical workers but applies to everyone whose work and decisions can affect health and safety. This should include activities and decisions made by company management that may affect health and safety. This may be by decisions by front-line staff making day-to-day management decisions, and by managers making management decisions on, for example, investment or renewal (see RSP1, Principle 1 factor (a)).
8. The guidance on competence management (RSP1) uses 15 principles to define key safety objectives to be achieved as part of an integrated competence management system. Each principle has a number of factors attached to it. They describe what should be done to implement each factor, and provide explanation on why it should be carried out. The examples provided, to help understanding and implementation of the factors, are taken mainly from the railway industry.

ASSESSMENT OF COMPETENCE

9. The assessment of competence is crucial for ensuring that persons carrying out safety critical work are competent (ROGS Regulation 24(1)(a)). Assessors who carry out the competence assessment of staff should themselves be subject to assessment of their competence with a rigour similar to that used to assess staff. Their ongoing professional competence as assessors (in the operation of the company competence management system) and also their occupational competence (related to their knowledge,

skills, etc in the activity they are assessing) should be assessed (RSP1 Principle 6(b)).

10. Verification of the assessors is also required. The checks should look at the use of appropriate competence standards, methods of assessment and the consistent use of procedures and work instructions. The verification should support assessors, ensuring that they remain competent and that their judgements are consistent and to a uniform standard. The quality of assessment records made by the assessors should be checked (RSP1 Principle 14(b)).

FITNESS OF SAFETY CRITICAL WORKERS

11. Appendix 1 of RSP1⁴ is on the fitness requirements of the ROGS Regulations. The purpose of determining the fitness of an individual is to enable work to be carried out competently and to reduce the risk to health and safety. The risk of any pre-existing disability or ill health affecting the safety of the individual, others at work, and the public should be reduced as far as possible.

FATIGUE OF SAFETY CRITICAL WORKERS

12. ROGS Regulation 25(1) requires that every safety critical worker 'does not carry out safety critical work in circumstances where he is so fatigued, or liable to become so fatigued, that his health or safety or the health or safety of others on a transport system could be significantly affected'. ORR has published guidance on managing fatigue *Managing fatigue in safety critical work*⁵.

HERITAGE RAILWAYS AND HERITAGE TRAMWAYS

13. Heritage railways and heritage tramways use a different range of job titles for people operating and maintaining their vehicles and infrastructure. In Annex B, Table T lists the job titles most often used by heritage railways and heritage tramways for people carrying out safety critical tasks. Some of these titles are gender specific, as they are specific titles used by heritage railways and heritage tramways (eg Fireman, Foreman, etc). The tasks are the same as those listed in Tables A to S in Annex A.

CONCLUSIONS

- 14.** In this document the safety critical tasks defined in the ROGS Regulations have been clarified in the tables in Annex A. Annex B lists the equivalent job titles most often used by heritage railways and tramways.
- 15.** The 1999 guidance on safety critical work, produced after consulting over 300 people across the industry, has been used as a reference document. There has been additional consultation before finalising this document. If further clarification is required please contact the Office of Rail Regulation for assistance.
- 16.** It is only the Courts who can provide definitive interpretation of the law. Inspectors intend to use the information in these tables as a guide in assessing compliance with the law and in connection with any enforcement activity.

REFERENCES

- 1 *The Railways and Other Guided Transport Systems (Safety) Regulations 2006* SI 2006/599 The Stationary Office 2006: ISBN 0 11 074307 5
- 2 *ROGS – Guidance on Safety Critical Work Terms* Office of Rail Regulation 2007 http://www.rail-reg.gov.uk/upload/pdf/ROGS_SCW_trms.pdf
- 3 *The Railways and Other Guided Transport Systems (Safety) Regulations 2006 Guidance on Regulations* Office of Rail Regulation April 2006: <http://www.rail-reg.gov.uk/upload/pdf/283.pdf>
- 4 *Developing and Maintaining Staff Competence* Second Edition, Railway Safety Publication 1, Office of Rail Regulation 2007: <http://www.rail-reg.gov.uk/upload/pdf/sf-dev-staff.pdf>
- 5 *Managing fatigue in safety critical work - Railways and Other Guided Transport Systems (Safety) Regulations 2006* Office of Rail Regulation July 2006: <http://www.rail-reg.gov.uk/upload/pdf/293.pdf>

ANNEX A. TABLES TO CLARIFY THE DEFINITION OF SAFETY CRITICAL TASKS

ANNEX B. HERITAGE RAILWAYS AND HERITAGE TRAMWAYS - CLARIFICATION OF SAFETY CRITICAL TASKS

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ANNEX A

TABLES TO CLARIFY THE DEFINITION OF SAFETY CRITICAL TASKS

1. Regulation 23(1)(a)

A safety critical task, in relation to a vehicle used on a transport system, means the following.

1.1 Regulation 23(1)(a)(i)

Driving, dispatching or any other activity which is capable of controlling or affecting the movement of that vehicle.

Table A. Driving a vehicle

A	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Driving a vehicle on the running line.	(a)(i)	Driving a vehicle on the transport system is covered by this Regulation.
2	Driving a vehicle inside a possession.	(a)(i)	A possession is part of a transport system, so that driving or operating a vehicle within a possession is covered by this Regulation.
3	Driving a vehicle within a siding.	(a)(i)	A siding is specifically included as part of the transport system for this Regulation by the definition of "transport system" in Regulation 2. Driving a vehicle within a siding is therefore covered by this Regulation.
4	Working as conductor driver on a vehicle.	(a)(i)	When a driver does not have the required route knowledge, a conductor driver can direct the driver and is then controlling the movement of the vehicle and is covered by this Regulation. (However, with both route and traction knowledge, the conductor driver will drive the vehicle over that part of the journey where the driver lacks the route knowledge and will then be the driver.)

Table B. Dispatching and controlling the movement of vehicles

B	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Dispatching a train or tram.	(a)(i)	Dispatching can be carried out by on-platform and on-board staff, and by the driver of one-person-operated trains, light rail and trams; dispatching controls the movement of vehicles and the person responsible for dispatching, and also those who assist in dispatching, control or affect the movement of vehicles and are covered by this Regulation.
2	Authorising the evacuation of a train or tram in an emergency.	(a)(i)	Authorising the evacuation of a train and tram includes ensuring that all nearby vehicle movements are controlled before giving the instruction to evacuate to avoid accidents with evacuated passengers on running lines or from road traffic; this is covered by this Regulation.
3	Protecting a rail vehicle stopped by an accident, failure, obstruction or other exceptional incident.	(a)(i)	Protecting a rail vehicle controls the movement of trains on the same line and on adjacent lines to avoid collisions, and is covered by this Regulation.
4	Controlling the movement of a rail vehicle.	(a)(i)	When controlling the movement of a rail vehicle (eg propelling (reversing) a train) on the running line, in a siding (eg shunting), or in a possession, the person controlling the movement of the train from the ground or from the front of the train directs the driver using hand signals or radio, with the driver being in the rear of the train or on-track machine (OTM). Some OTMs can be controlled remotely using a control box. The person controlling the movement of the vehicle and the driver, if present, are both covered by this Regulation.
5	Working as a Pilotman during single line working or emergencies.	(a)(i)	Having obtained the permission of the signaller the Pilotman authorises all vehicle movements that enter or foul any portion of the single line and may accompany the driver of a vehicle; the Pilotman is controlling the movement of a vehicle and is covered by this Regulation.

1.2 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.

Table C. Signalling and signalling operations

C	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Signalling duties.	(a)(ii)	Controlling the movement of trains on a running line from a signal box or signalling control centre, when the signaller is controlling trains to the requirements of the operating rules, including during degraded operations and emergency working, is controlling the movement of vehicles and is covered by this Regulation.
2	Directing other staff for the movement of vehicles e.g. control centre staff when implementing contingency plans in the event of equipment failure.	(a)(ii)	Communications from a variety of controllers employed by infrastructure managers and train operators in the event of failure of infrastructure or on-train equipment can have a direct effect on the movement of vehicles; these people are carrying out safety critical tasks and are covered by this Regulation.
3	Hand signalling.	(a)(ii)	Hand signalling, often in an emergency, is used to control the movement of vehicles and is covered by this Regulation.
4	Stopping trains in an emergency.	(a)(ii)	Stopping trains in an emergency by a person whose job is to stop trains as required, is controlling the movement of vehicles. (This does not include all those who hold a track safety certificate). This task is safety critical and is covered by this Regulation.
5	Operating points.	(a)(ii)	Controlling the setting of points, or manually operating, securing or setting points following a failure or disconnection, and working to the instructions of the signaller, controls the movement of vehicles and is covered by this Regulation.

C	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
6	Controlling the movement of trains to and from the running lines.	(a)(ii)	Controlling the movement of trains to and from the running lines, which may include operating a ground frame working to the instructions of the signaller, is controlling the movement of vehicles and is covered by this Regulation.
7	Blocking lines and arranging possessions, including in emergencies.	(a)(ii)	Blocking lines and arranging possessions, including in an emergency, is controlling the movement of vehicles and is covered by this Regulation.
8	Controlling the movement of trains into and out of a possession.	(a)(ii)	Controlling the movement of trains into and out of a possession and onto the running line is controlling the movement of vehicles and is covered by this Regulation.
9	Controlling the movement of trains within a possession.	(a)(ii)	A possession is the part of the transport system where maintenance is carried out, and where maintenance activities affect the line and can affect adjacent running lines, so that controlling the movement of a train within a possession is controlling the movement of vehicles and is covered by this Regulation.

Table D. Operation of level crossing equipment

D	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Operating level crossing equipment and controlling signals locally.	(a)(ii)	Operating level crossing equipment and controlling signals by the level crossing keeper, and a person locally controlling a level crossing normally controlled automatically or remotely; these people are controlling the movement of vehicles and are covered by this Regulation.
2	Operating level crossing equipment and controlling signals remotely.	(a)(ii)	Operating level crossing equipment and controlling signals remotely from a signal box or signalling control centre is controlling the movement of vehicles and is covered by this Regulation.

Table E. Receiving and relaying communications or other activity capable of controlling the movement of vehicles

E	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Communicating with signallers and line controllers.	(a)(ii)	Receiving and relaying communications between a signaller (Network Rail) or line controller (London Underground) with an electrical control operator, driver, level crossing keeper, and locally controlling a level crossing normally controlled automatically or remotely and others controlling or affecting the movement of vehicles are covered by this Regulation.
2	Communicating with electrical control operators.	(a)(ii)	Receiving and relaying communications between an electrical control operator, who controls the supply of electricity to the transport system, and a driver or others who control or affect the movement of vehicles are covered by this Regulation.
3	Any activity capable of controlling or affecting the movement of a vehicle.	(a)(ii)	Any communication or activity capable of controlling or affecting the movement of a vehicle that could significantly affect the health or safety of persons on a transport system is covered by this Regulation.

1.3 Regulation 23(1)(a)(iii)

Coupling or uncoupling.

Table F. Coupling or uncoupling vehicles

F	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Coupling and uncoupling vehicles.	(a)(iii)	Coupling and uncoupling railway vehicles in a depot prior to departure onto a transport system, in a station, in sidings, on running lines, and in a possession are covered by this Regulation.

1.4 Regulation 23(1)(a)(iv)

Installation of components, other than where the installation of those components is subject to supervision and checking by a safety critical worker or controller of safety critical work.

Table G. Installation of components onto a vehicle (This should be read in conjunction with *ROGS – Guidance on Safety Critical Work Terms²* and *ROGS Guidance on Regulations³*)

G	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Installation of components onto vehicles normally in service.	(a)(iv)	The installation, examination or testing (including non-destructive testing) of components installed onto a vehicle in use on the transport system can be carried out in a depot, sidings or exceptionally in an emergency on running lines. Where these tasks could significantly affect the health or safety of persons on a transport system, the tasks are safety critical and covered by this Regulation except where the work is subject to supervision and checking by a safety critical worker or a controller of safety critical work.
2	Installation of signalling related components onto vehicles normally in service.	(a)(iv)	The installation, examination or testing of signalling related components installed onto a vehicle in use on the transport system, including AWS and enhancements, ATP and variants of ERTMS; this work can be carried out in a depot, sidings or on the running lines. These are safety critical tasks and covered by this Regulation except where the work is subject to supervision and checking by a safety critical worker or a controller of safety critical work.
3	Installation of telecommunications related components onto vehicles normally in service.	(a)(iv)	The installation, examination or testing of telecommunications related components installed onto a vehicle in use on the transport system, including national radio network (NRN), cab secure radio (CSR) and Cab Mobile systems; this work can be carried out in a depot, sidings or on the running lines. These are safety critical tasks and covered by this Regulation except where the work is subject to supervision and checking by a safety critical worker or a controller of safety critical work.

1.5 Regulation 23(1)(a)(v)

Maintenance, other than where the carrying out of that maintenance is subject to supervision and checking by a safety critical worker or controller of safety critical work.

Table H. Maintenance of a vehicle (This should be read in conjunction with *ROGS – Guidance on Safety Critical Work Terms²* and *ROGS Guidance on Regulations³*)

H	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Maintenance of vehicles normally in service.	(a)(v)	The maintenance, repair, reconditioning, examination, testing (including non-destructive testing), alteration and day-to-day maintenance of vehicles in use on the transport system, and including 'hot spare' trains on standby. This work can be carried out in a depot, sidings or on the running lines. Where these tasks could significantly affect the health or safety of persons on a transport system, the tasks are safety critical and covered by this Regulation except where the work is subject to supervision and checking by a safety critical worker or a controller of safety critical work.
2	Maintenance of signalling related components on vehicles normally in service.	(a)(v)	The maintenance, repair, reconditioning, examination, testing and alteration of signalling related components installed on a vehicle in use on the transport system; these components include AWS and enhancements, ATP and variants of ERTMS. This work can be carried out in a depot, sidings or on the running lines. These are safety critical tasks and covered by this Regulation except where the work is subject to supervision and checking by a safety critical worker or a controller of safety critical work.
3	Maintenance of telecommunications related components on vehicles normally in service.	(a)(v)	The maintenance, repair, reconditioning, examination, testing and alteration of telecommunications related components installed on a vehicle in use on the transport system; these include components of the national radio network (NRN), cab secure radio (CSR) and Cab Mobile systems. This work can be carried out in a depot, sidings or on the running lines. These are safety critical tasks and covered by this Regulation except where the work is subject to supervision and checking by a safety critical worker or a controller of safety critical work.

1.6 Regulation 23(1)(a)(vi)

Checking that the vehicle is working properly and, where carrying goods, is correctly loaded before being used.

Table I. Checking a vehicle

I	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Checking that vehicles are working properly.	(a)(vi)	Before starting a journey and after attaching or detaching vehicles a number of checks, examinations or functional tests should be carried out for the safe running of vehicles, which may be powered or unpowered, including on-track plant and machines, to determine if they are fit for purpose and working properly. The person or persons responsible for checking the vehicles before they are used (including the person carrying out train preparation checks, and the driver) are covered by this Regulation.
2	Checking that goods are properly and safely loaded.	(a)(vi)	Before starting a journey loaded goods vehicles should be checked to ensure that they are correctly loaded, including checking that the gross vehicle weight and any uneven loading are within limits, the goods are satisfactorily secured and the goods and any vehicle components do not and will not infringe the vehicle loading gauge during the journey. The person or persons responsible for carrying out these checks before the vehicles are used are covered by this Regulation.

2. Regulation 23(1)(b)

A safety critical task, in relation to a transport system, means the following.

2.1 Regulation 23(1)(b)(i)

Installation or maintenance of any part of it or of the telecommunications system relating to it or used in connection with it, or of the means of supplying electricity directly to that transport system or to any vehicles using it or to the telecommunications system other than where the carrying out of that task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.

Table J. Installation and maintenance of permanent way

J	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Installing track, components or structures supporting the permanent way.	(b)(i)	The installation, examination and testing of new track, components and structures supporting the permanent way and authorising the use of the transport system for reduced speed or normal speed running are covered by this Regulation. This includes components such as drainage and pumps that could significantly affect the health or safety of persons on the transport system. These are safety critical tasks except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.
2	Maintaining track, components or structures supporting the permanent way.	(b)(i)	The maintenance, repair, reconditioning, examination, testing and alteration of the track, components and structures supporting the permanent way and authorising the use of the transport system for reduced speed or normal speed running are covered by this Regulation. This includes the maintenance of components such as drainage and pumps that could significantly affect the health or safety of persons on the transport system. These are safety critical tasks, except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.

J	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
3	Installing and commissioning new infrastructure.	(b)(i)	The installation, testing and commissioning of new infrastructure is covered by this Regulation. However, for large installations it is likely that the supervision, checking and responsibility for any operational limitations (eg temporary speed limits, etc) will be carried out by a safety critical worker and covered by this Regulation.

Table K. Inspection of track and structures

K	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Inspecting track.	(b)(i)	Track inspection, often carried out at regular intervals (eg by a patroller) may identify dangerous track defects that require trains to operate at reduced speed or be stopped so that urgent maintenance work can be carried out; this is covered by this Regulation.
2	Inspecting a bridge strike.	(b)(i)	After a bridge strike the track and bridge structure must be examined for damage and structural integrity to determine if trains can be authorised to run at normal line speed or reduced speed, and the maintenance work required; this is covered by this Regulation.
3	Examining an underbridge, supporting structure or embankment.	(b)(i)	Examination of the track, supporting bridge, structure and embankment may identify damage or lack of structural integrity that requires trains to operate at reduced speed or be stopped so that urgent maintenance work can be carried out; this is covered by this Regulation.

Table L. On-track machines (OTMs, including on-track plant) and permanent way maintenance vehicles for installation and maintenance

L	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Checking the settings and calibrations on an OTM prior to use on the running line.	(b)(i)	The maintenance work of checking the settings and calibrations on an on-track machine (OTM) to correct the track profile and support is covered by this Regulation, except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.
2	Operating an OTM that alters the track profile.	(b)(i)	The operation of an on-track machine (OTM) to maintain the permanent way affects the guidance and support for vehicles is covered by this Regulation, except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.
3	Operating a vehicle on the permanent way to carry out maintenance on the permanent way or supporting structures, including the use of rail, road/rail, road wheeled or tracked vehicles.	(b)(i)	The installation and maintenance of the permanent way can involve a wide range of vehicles including cranes and machines that could rotate and foul an adjacent running line. Every task that could affect the health or safety of people on the transport system is safety critical and is covered by this Regulation, except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.

Table M. Signal engineering

M	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Installing signalling components.	(b)(i)	The installation, examination and testing of signalling components is covered by this Regulation, except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.
2	Maintaining signalling equipment.	(b)(i)	Maintenance, repair, reconditioning, examination, testing and alteration of signalling equipment components is covered by this Regulation, except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.
3	Installing and maintaining the signalling power supply system.	(b)(i)	The installation and maintenance of the signalling power supply system, that powers and therefore operates the signalling equipment, is covered by this Regulation, except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.
4	Inspecting signalling equipment.	(b)(i)	Inspection, including the inspection as part of the investigation of an incident, may result in trains being stopped for urgent maintenance work to be carried out, or a decision made on the use or non-use of signalling equipment; this is a safety critical task and covered by this Regulation.

Table N. Telecommunication systems

N	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Installing and maintaining NRN, CSR and Cab Mobile.	(b)(i)	<p>National radio network (NRN) is a secure communication system connecting a driver to a Network Rail Control Office and covers most of the UK. Cab secure radio (CSR) is a secure communication system between a driver and a signaller and is used mainly in SE England. The Cab Mobile system, using GSM-R, is a secure communication system connecting a driver to a signaller and will soon start to replace both NRN and CSR throughout the UK.</p> <p>Installation and maintenance of these systems also includes repair, reconditioning, examination, testing and alteration of the system or its components; these tasks are covered by this Regulation except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.</p>
2	Installing and maintaining signal post telephones.	(b)(i)	<p>The location of every signal post telephone (SPT) is known to signallers. A SPT is used by the signaller to identify where a train driver, using the telephone, is speaking from and therefore locates the position where the driver's train is stopped; this provides crucial information to the signaller.</p> <p>Installation and maintenance also includes repair, reconditioning, examination, testing and alteration of the system or components of the signal post telephone system; these tasks are covered by this Regulation except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.</p>

N	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
3	Installing and maintaining electrification telephones.	(b)(i)	<p>Electrification telephones are for use during maintenance and emergencies for communicating from the track and stations to operators in the electrical control room (ECR). Errors in switching electrical power with up to 25,000 volts can seriously affect the health and safety of those involved in the installation and maintenance of electrification systems and components, and in emergencies can affect the health and safety of operators and users of the transport system.</p> <p>Installation and maintenance also includes repair, reconditioning, examination, testing and alteration of the system or components of the electrification telephone system; these tasks are covered by this Regulation except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.</p>
4	Installing and maintaining level crossing telephones.	(b)(i)	<p>Telephones at level crossings, being directly linked to a signal box or signalling control centre, connects the caller to a signaller who can say if it is safe to cross the railway line.</p> <p>Installation and maintenance also includes repair, reconditioning, examination, testing and alteration of the system or components of the level crossing telephone system; these tasks are covered by this Regulation except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.</p>

Table O. Supplying electricity to the transport system, to vehicles using it and to the telecommunications system

O	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Installing and maintaining the power supply and distribution system.	(b)(i)	<p>The power supply and distribution system covers the electrical equipment supplying the traction voltage, the conductors, the overhead line equipment (OLE) structures and equipment and the 3rd and 4th rail system conductor rails and supports.</p> <p>Installation and maintenance also includes repair, reconditioning, examination, testing and alteration of the system or components of the systems, including fault finding and rectification. Where these tasks could significantly affect the health or safety of persons on a transport system they are covered by this Regulation, except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.</p>
2	Installing and maintaining electrical equipment supplying electricity to the telephone and telecommunications systems.	(b)(i)	<p>Installation and maintenance also includes repair, reconditioning, examination, testing and alteration of the system or components, including fault finding and rectification, of the electrical equipment supplying the telecommunications systems, including NRN, CSR, Cab Mobile, SPT, electrification telephones and level crossing telephones as listed in Table N.</p> <p>Where these tasks could significantly affect the health or safety of persons on a transport system they are covered by this Regulation, except where carrying out the task is subject to supervision and checking by a safety critical worker or a controller of safety critical work.</p>

2.2 Regulation 23(1)(b)(ii)

Controlling the supply of electricity directly to the transport system or to vehicles used on it.

Table P. Controlling the supply of electricity to the electric traction and signalling systems

P	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Controlling and isolating the traction supply.	(b)(ii)	Controlling and isolating the electric traction supply to vehicles on a transport system, normally carried out in the Electrical Control Room, and isolating short sections carried out by operators on the track are covered by this Regulation.
2	Controlling the supply of electricity to the signalling system.	(b)(ii)	The signalling system is part of the transport system, so that controlling the supply of electricity to the signalling system is covered by this Regulation.

2.3 Regulation 23(1)(b)(iii)

Receiving and relaying of communications.

Table Q. Communicating with signallers, electrical control operators, PICOPs, Possession Masters and others (see Table E for communications capable of controlling the movement of vehicles)

Q	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Communicating with signallers.	(b)(iii)	Receiving and relaying communications between a signaller and drivers and others controlling the movement of trains, those involved in setting up and operation of possessions, carrying out installation and maintenance and others where the communication could significantly affect the health or safety of persons on a transport system are covered by this Regulation.
2	Communicating with electrical control operators.	(b)(iii)	Receiving and relaying communications between an electrical control operator and those who control the supply of electricity to the transport system, those carrying out installation and maintenance of the electrical system and others where the communication could significantly affect the health or safety of persons on a transport system are covered by this Regulation.
3	Communicating with a PICOP (NR) and Possession Master (LUL)	(b)(iii)	Receiving and relaying communications between a PICOP (person in charge of possessions, on Network Rail infrastructure), Possession Master (on London Underground) and those working in a possession where the communication could significantly affect the health or safety of persons on a transport system are covered by this Regulation.
4	Safety critical communications by others.	(b)(iii)	Receiving and relaying communications between all persons, including using speech, touch, handsignals or using a whistle, horn, lamp, flags or audible warning systems (eg TOWS, LOWS or Pee Wee systems) and others where the communication could significantly affect the health or safety of persons on a transport system are covered by this Regulation.

2.4 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.

Table R. Protecting persons on or near the track

R	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Protecting people working on or near the track.	(b)(iv)	Ensuring the safety of people working on or near the track is carried out by people including an IWA (individual working alone) protecting him/herself and by a Lookout, COSS (controller of site safety) and Site Warden (on Network Rail) and Protection Master (on London Underground) are protecting others; these tasks are safety critical where they could significantly affect the health or safety of persons on a transport system and are covered by this Regulation.
2	Protecting people in possessions.	(b)(iv)	Ensuring the safety of people working in possessions is carried out by people including a PICOP (person in charge of possessions), Engineering Supervisor and Protection Controller (on Network Rail) and Possession Master (on London Underground); these tasks are safety critical where they could significantly affect the health or safety of persons on a transport system and are covered by this Regulation.

3. Regulation 23(1)(c)

In relation to training, any practical training or the supervision of any such training in any of the tasks set out in sub-paragraphs (a) to (b).

Table S. Practical training and the supervision of practical training

S	Task	Regulation 23(1)	Why task is safety critical according to the ROGS Regulations
1	Practical training or the supervision of practical training in any of the tasks defined as safety critical.	(c)	<p>The scope of this Regulation includes practical training, supervision of practical training, coaching and assessment of the competence of individuals carrying out safety critical tasks. This provides the practical knowledge, understanding and experience to carry out safety critical tasks. In this context practical training does not include the use of training aids such as a simulator or using a mock exercise in a training workshop or depot.</p> <p>The practical training should initially develop competence in normal activities, before progressing on to degraded operations and emergencies. The people carrying out practical training, supervision of the practical training, coaching and competence assessment are carrying out safety critical tasks where they could significantly affect the health or safety of persons on a transport system, and are covered by this Regulation.</p>

ANNEX B

HERITAGE RAILWAYS AND HERITAGE TRAMWAYS - CLARIFICATION OF SAFETY CRITICAL TASKS

Heritage railways and heritage tramways use different job titles for people carrying out the safety critical tasks listed in Annex A Tables A to S. The equivalent job titles most often used by heritage railways and heritage tramways for people carrying out safety critical tasks are listed in Table T.

Table T. Job Titles used by Heritage Railways and Heritage Tramways

No.	Task	Regulation 23(1)	Job Titles used by Heritage Railways and Heritage Tramways
A1	Driving a vehicle on the running line.	(a)(i)	Driver
A2	Driving a vehicle inside a possession.	(a)(i)	Driver
A3	Driving a vehicle within a siding.	(a)(i)	Driver
A4	Working as conductor driver on a vehicle.	(a)(i)	Driver
B1	Train dispatching.	(a)(i)	Guard, Station Staff, Driver
B2	Authorising the evacuation of a train or tram in an emergency.	(a)(i)	Guard
B3	Protecting a rail vehicle stopped by an accident, failure, obstruction or other exceptional incident.	(a)(i)	Driver, Fireman/Secondman, Guard
B4	Controlling the movement of a rail vehicle.	(a)(i)	Driver, Guard, Shunter
B5	Working as a pilotman during single line working or emergencies.	(a)(i)	Authorised competent staff
C1	Signalling duties.	(a)(ii)	Signalman
C2	Directing other staff for the movement of vehicles e.g. control centre staff when implementing contingency plans in the event of equipment failure.	(a)(ii)	Controller, Signalman
C3	Hand signalling.	(a)(ii)	Signalman, competent person working under the direction of a Signalman

No.	Task	Regulation 23(1)	Job Titles used by Heritage Railways and Heritage Tramways
C4	Stopping trains in an emergency.	(a)(ii)	Driver, Guard Signalman, competent Permanent Way (PW) staff
C5	Operating points.	(a)(ii)	Signal/Telephone Linesman, Technician, Signalman, Guard, Shunter, Fireman
C6	Controlling the movement of trains to and from the running lines.	(a)(ii)	Signalman, Shunter, Fireman/ Secondman, Guard, station staff
C7	Blocking lines and arranging possessions, including in emergencies.	(a)(ii)	Line Controller, Signalman, Person in Charge of Possession, Isolation on Heritage Tramways by Electrical Engineer, Overhead Linesman
C8	Controlling the movement of trains into and out of a possession.	(a)(ii)	Signalman, PW Supervisor/Foreman, Person in Charge of Possession
C9	Controlling the movement of trains within a possession.	(a)(ii)	PW Supervisor/Foreman, Person in Charge of Possession
D1	Operating level crossing equipment and controlling signals locally.	(a)(ii)	Signalman, Level Crossing Keeper
D2	Operating level crossing equipment and controlling signals remotely.	(a)(ii)	Signalman
E1	Communicating with signallers and line controllers.	(a)(ii)	Driver, Guard, Fireman, Controller
E2	Communicating with electrical control operators.	(a)(ii)	Driver, Conductor
E3	Any activity capable of controlling or affecting the movement of a vehicle.	(a)(ii)	Driver, Shunter, Guard, Fireman
F1	Coupling or uncoupling vehicles.	(a)(iii)	Guard, Fireman/Secondman, Shunter, Station Staff
G1	Installation of components onto vehicles normally in service.	(a)(iv)	Maintenance staff
G2	Installation of signalling related components onto vehicles normally in service.	(a)(iv)	Maintenance staff
G3	Installation of telecommunications related components onto vehicles normally in service.	(a)(iv)	Maintenance staff

No.	Task	Regulation 23(1)	Job Titles used by Heritage Railways and Heritage Tramways
H1	Maintenance of vehicles normally in service.	(a)(v)	Maintenance staff
H2	Maintenance of signalling related components on vehicles normally in service.	(a)(v)	Maintenance staff
H3	Maintenance of telecommunications related components on vehicles normally in service.	(a)(v)	Maintenance staff
I1	Checking that vehicles are working properly.	(a)(vi)	Shedmaster/Locomotive Foreman, Examiner Fitter, Carriage & Wagon Examiner/Foreman, Driver, Fireman/Secondman, Guard
I2	Checking that goods are properly and safety loaded.	(a)(vi)	Guard, Driver
J1	Installing track, components or structures supporting the permanent way.	(b)(i)	Civil Engineer/Supervisor
J2	Maintaining track, components or structures supporting the permanent way.	(b)(i)	Civil Engineer/Supervisor
J3	Installing and commissioning new infrastructure.	(b)(i)	PW Supervisor/Foreman
K1	Inspecting track.	(b)(i)	PW Patrolman
K2	Inspecting a bridge strike.	(b)(i)	Bridge Strike Nominee
K3	Examining an underbridge, supporting structure or embankment.	(b)(i)	PW Supervisor/Foreman
L1	Checking the settings and calibrations on an OTM prior to use on the running line.	(b)(i)	Technician
L2	Operating an OTM that alters the track profile.	(b)(i)	PW Supervisor/Foreman
L3	Operating a vehicle on the permanent way to carry out maintenance on the permanent way or supporting structures, including the use of rail, road/rail, road wheeled or tracked vehicles.	(b)(i)	Driver
M1	Installing signalling components.	(b)(i)	Signal/Telephone Linesman, Technician

No.	Task	Regulation 23(1)	Job Titles used by Heritage Railways and Heritage Tramways
M2	Maintaining signalling equipment.	(b)(i)	Signal/Telephone Linesman, Technician
M3	Installing and maintaining the signalling power supply system.	(b)(i)	Signal/Telephone Linesman, Technician
M4	Inspecting signalling equipment.	(b)(i)	Signal/Telephone Linesman, Technician
N1	Installing and maintaining NRN, CSR and Cab Mobile.	(b)(i)	Signal & Telegraph (S&T) Technician, Linesman, Electrician
N2	Installing and maintaining signal post telephones.	(b)(i)	S&T Technician, Linesman, Electrician
N3	Installing and maintaining electrification telephones.	(b)(i)	S&T Technician, Linesman, Electrician
N4	Installing and maintaining level crossing telephones.	(b)(i)	S&T Technician, Linesman, Electrician
O1	Installing and maintaining the power supply and distribution system.	(b)(i)	Electrical Maintenance Engineer
O2	Installing and maintaining electrical equipment supplying electricity to the telephone and telecommunications systems.	(b)(i)	S&T Technician, Electrician
P1	Controlling and isolating the traction supply.	(b)(ii)	Heritage Tramways – Electrical Engineer, Overhead Linesman
P2	Controlling the supply of electricity to the signalling system.	(b)(ii)	S&T Technician
Q1	Communicating with signallers.	(b)(iii)	Driver, Fireman, Guard, Level Crossing Keeper, Line controller, Station Staff
Q2	Communicating with electrical control operators.	(b)(iii)	Driver, Fireman, Guard, Level Crossing Keeper, Line controller, Station Staff
Q3	Communicating with a PICOP (NR) and Possession Master (LUL)	(b)(iii)	Driver, Guard, Signaller, Controller
Q4	Safety critical communications by others.	(b)(iii)	All
R1	Protecting people working on or near the track.	(b)(iv)	Lookout, PICOW or equivalent, Site Warden or equivalent
R2	Protecting people in possessions.	(b)(iv)	Lookout, PICOW or equivalent, Site Warden or equivalent
S1	Practical training or the supervision of practical training in any of the tasks defined as safety critical.	(c)	Training Officer, Trainers, Inspectors

