

**Railway Group Standard
GO/RT3437**

Issue Seven

Date September 2013

Defective On-Train Equipment

Synopsis

This document mandates the requirements relating to the production of contingency plans, which have to be applied when on-train equipment becomes defective. It applies to all trains being brought into service, and to those in service, on Network Rail managed infrastructure.

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Issue record

Issue	Date	Comments
One	June 1998	Rapid Response, replacement of Group Standard GO/OT0013
Two	February 1999	Amendments following consultation
Three	August 2000	Amendment following further review and consultation
Four	December 2004	Updated to reflect new technology and replaces issue three
Five	April 2008	Revised as part of the Strategy for Standards Management. Replaces issue four.
Six	June 2010	Replaces issue five. Small scale change limited to Appendix A: addition of ERTMS to the list of on-train equipment and also clarification of bullet point a) Train Radio.
Seven	September 2013	Replaces issue six. Updated following 12 month review and as a result of changes to Rule Book Module TW5, transfer of some items of on-train equipment to a new non-mandatory Appendix B, addition of air suspension and driving controls to the list of defective equipment in Appendix A and vehicle couplings to Appendix B, addition of two new sub-headings to align with Guidance Note GO/GN3637 and other minor amendments.

Amended or additional parts and/or sections of revised pages have been marked by a vertical black line in the adjacent margin.

Superseded documents

The following Railway Group documents are superseded, either in whole or in part as indicated:

Superseded documents	Sections superseded	Date when sections are superseded
GO/RT3437 Issue six	All sections	07 December 2013

GO/RT3437 Issue six ceases to be in force and is withdrawn as of 07 December 2013.

Supply

The authoritative version of this document is available at www.rgsonline.co.uk. Uncontrolled copies of this document can be obtained from Communications, RSSB, Block 2, Angel Square, 1 Torrens Street, London EC1V 1NY, telephone 020 3142 5400 or e-mail enquirydesk@rssb.co.uk. Other Standards and associated documents can also be viewed at www.rgsonline.co.uk.

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Part 1 Purpose and Introduction

1.1 Purpose

- 1.1.1 This document mandates requirements for the production of specific contingency plans which have to be applied when on-train equipment becomes defective and, in its defective state, could result in increased risk to safe interworking, the safety of passengers or the railway workforce. It applies to all trains being brought into service, and to those in service, on Network Rail managed infrastructure.

1.2 Introduction

1.2.1 Background

- 1.2.1.1 The requirements of this document are based on the need for railway undertakings to produce and publish defective on-train equipment (DOTE) contingency arrangements for trains affected by specified on-train equipment faults and breakdowns. The DOTE contingency plans are reviewed and monitored by all affected railway undertakings. Infrastructure managers will be required to review DOTE contingency plans submitted to them and given the opportunity to make comments if they have any. Infrastructure managers will need to have reviewed DOTE contingency plans in order for them to inform railway undertakings of any infrastructure changes that might affect the plans.
- 1.2.1.2 Each measure in this Railway Group Standard states what railway undertakings and infrastructure managers are required to do at the interface.
- 1.2.1.3 The term 'infrastructure managers' includes those responsible for the management of stations.
- 1.2.1.4 This is a high-level document that is generally aimed for use by Standards Managers; other interested parties may find it useful for information purposes.
- 1.2.1.5 The detailed requirements for front line staff are located in GE/RT8000 Rule Book.

1.2.2 Principles

- 1.2.2.1 Trains should not operate with defective on-train safety systems, equipment or components unless measures have been taken to enable consequential risks to be controlled.
- 1.2.2.2 On-train safety systems, equipment or components should be identified, and procedures should be in place to control risks if such systems, equipment or components become defective. These procedures should take into account the routes over which trains operate (including station interface arrangements) and should be established following liaison with, and discussions between, the railway undertakings and infrastructure managers concerned.

1.2.3 Related requirements in other documents

- 1.2.3.1 There are related requirements in the following Railway Group documents at the time of publication:
- a) GE/RT8000 Rule Book modules AC, TW1, TW5.
 - b) GM/RT2466 Railway Wheelsets.

1.2.4 Supporting documents

- 1.2.4.1 The following Guidance Note supports this Railway Group Standard:

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- a) GO/GN3637 Guidance on Defective On-Train Equipment.

1.3 Approval and authorisation of this document

- 1.3.1 The content of this document was approved by TOM Standards Committee on 21 May 2013.
- 1.3.2 This document was authorised by RSSB on 02 August 2013.

Part 2 Requirements for defective on-train equipment (DOTE)

2.1 Responsibilities of infrastructure managers

2.1.1 Review of DOTE contingency plans

2.1.1.1 Infrastructure managers shall review and, if appropriate, comment, on all draft DOTE contingency plans submitted to them by railway undertakings.

2.1.2 Advising railway undertakings of changes to facilities

2.1.2.1 Infrastructure managers shall inform railway undertakings of any changes to facilities, either temporary or permanent, that will affect the detrainment of passengers at stations identified in a published DOTE contingency plan.

2.2 Responsibilities of railway undertakings

2.2.1 Requirement for the production of a contingency plan for defective on-train equipment

2.2.1.1 Railway undertakings shall produce and publish a DOTE contingency plan that describes the actions to be taken when any item of on-train equipment, as listed in Appendix A of this document, becomes defective and gives due consideration to the inclusion of the items listed in Appendix B.

2.2.2 Requirement for the distribution of draft and published DOTE contingency plans

2.2.2.1 Railway undertakings shall distribute a copy of their respective DOTE contingency plan, in draft when they are in development, and in final published format to the following:

- a) The infrastructure manager responsible for the mainline railway.
- b) Infrastructure managers responsible for stations where a DOTE contingency plan states that passenger detrainments are permitted.
- c) Other railway undertakings affected by the operation of a DOTE contingency plan.

2.2.3 Requirement to monitor and amend a published DOTE contingency plan

2.2.3.1 Railway undertakings shall monitor the effectiveness of their published DOTE contingency plan in order to identify any shortcomings.

2.2.3.2 Railway undertakings shall amend and update their published plan if required as a result of DOTE contingency plan monitoring.

2.2.4 Requirement to review DOTE contingency plans

2.2.4.1 Railway undertakings shall review their published DOTE contingency plan whenever the following occur:

- a) Changes are made to routes over which they operate.
- b) Changes to the train service pattern or the level of train service are made that affect a published DOTE contingency plan.
- c) Changes are made to their rolling stock fleet.
- d) Removals, modifications, additions and/or withdrawals are made to on-train equipment

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- e) Changes are made to the rolling stock maintenance arrangements that affect a published DOTE contingency plan.
- f) Changes are made to facilities, either temporary or permanent, at stations identified for the detrainment of passengers in a published DOTE contingency plan.
- g) After an issue arising from an application of the DOTE contingency plan.

Part 3 Application of this document

3.1 Application - infrastructure managers

3.1.1 Scope

3.1.1.1 The requirements of this document apply to all infrastructure managers' staff who deal with the application and review of railway undertakings' defective on-train equipment contingency plans.

3.1.2 Exclusions from scope

3.1.2.1 On-track plant not permitted to be moved or operated on the mainline railway outside possessions is outside the scope of GO/RT3437 and the guidance note GO/GN3637.

3.1.3 General compliance date for infrastructure managers

This Railway Group Standard comes into force and is to be complied with from 07 December 2013, except as specified in 3.2.4. Where the dates specified in 3.2.4 are later than the above date, this is to allow infrastructure managers sufficient time to achieve compliance with the specified exceptions.

3.1.3.1 After the compliance dates, or the date by which compliance is achieved if earlier, infrastructure managers are to maintain compliance with the requirements set out in this Railway Group Standard. Where it is considered not reasonably practicable to comply with the requirements, permission to comply with a specified alternative should be sought in accordance with the Railway Group Standards Code.

3.1.4 Exceptions to general compliance date

3.1.4.1 There are no exceptions to the general compliance date specified in clause 3.1.3 for infrastructure managers.

3.2 Application - railway undertakings

3.2.1 Scope

3.2.1.1 The requirements of this document apply to all railway undertakings' staff who deal with the application and review of defective on-train equipment contingency plans.

3.2.2 Exclusions from scope

3.2.2.1 On-track plant not permitted to be moved or operated on the mainline railway outside possessions are outside the scope of GO/RT3437 and the guidance note GO/GN3637.

3.2.3 General compliance date for railway undertakings

3.2.3.1 This Railway Group Standard comes into force and is to be complied with from 07 December 2013, except as specified in 3.2.4. Where the dates specified in 3.2.4 are later than the above date, this is to allow railway undertakings sufficient time to achieve compliance with the specified exceptions.

3.2.3.2 After the compliance dates, or the date by which compliance is achieved if earlier, railway undertakings are to maintain compliance with the requirements set out in this Railway Group Standard. Where it is considered not reasonably practicable to comply with the requirements, permission to comply with a specified alternative should be sought in accordance with the Railway Group Standards Code.

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3.2.4 Exceptions to general compliance date

- 3.2.4.1 There are no exceptions to the general compliance date specified in 3.2.3 for railway undertakings.

3.3 Health and safety responsibilities

- 3.3.1 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.

Appendix A List of on-train equipment for inclusion in DOTE contingency plans

The content of this appendix is mandatory.

A.1.1.1 The content of this appendix details the minimum list of on-train equipment for which DOTE contingency plans shall be produced (a cross reference to the corresponding sections of GE/RT8000 Rule Book Module TW5 is provided):

- 1) Air suspension (Section 3).
- 2) Automatic brake systems (Section 5).
- 3) Automatic Dropping Device (ADD- module AC).
- 4) Automatic Train Protection (ATP- not in the Rule Book).
- 5) Automatic Warning System (AWS) (Section 4).
- 6) Doors (Section 6)
 - a) Doors (external) – entering or continuing in service from any location – summary of requirements.
 - b) Doors (external) – general guidance.
 - c) Doors (external) – defects in service at any location. Guidance specific to power operated doors.
 - d) Doors (external) – defects in service at any location. Guidance specific to central locking.
- 7) Driver Reminder Appliance (DRA) (Section 7).
- 8) Driver's Safety Device (DSD) (Section 8).
- 9) Driving cab windscreens, broken or obscured (Section 9).
- 10) Driving controls (Section 10).
- 11) Emergency Bypass Switch (EBS) (Section 11).
- 12) ERTMS equipment.
- 13) Headlights (Section 13).
- 14) Hot axle boxes (Section 14).
- 15) Lifeguards (Section 15).
- 16) Locked wheels/wheel flats/shifted tyres/dragging brakes (Section 25).
- 17) On-Train Data Recorder (OTDR) (Section 16).
- 18) Public Address system - DO trains (Section 17).
- 19) Sanding equipment (that assists braking) (Section 18).

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- 20) Selective Door Opening facility (SDO) – on-train and balise-driven systems (Section 19).
- 21) Speedometer (Section 20).
- 22) Tail lamps (Section 13).
- 23) Tilt Authorisation and Speed Supervision system (TASS) (tilting trains only) (not in the Rule Book).
- 24) Track Circuit Actuators (TCA) (Section 21).
- 25) Traction Interlock Switch (TIS) – DO passenger trains (Section 22).
- 26) Traction Interlock Switch (TIS) – Other passenger trains (Section 22).
- 27) Train Protection and Warning System (TPWS) (Section 23).
- 28) Train radio (Section 24).
 - a) Train radio – Secure train radio systems – Cab Secure Radio (CSR).
 - b) Train radio – Secure train radio systems – Global System for Mobile Communication – Railway (GSM-R) voice.
 - c) Train radio – Non-secure train radio systems – NRN.
 - d) Train radio – Non-secure train radio systems – RETB (not in the Rule Book).
- 29) Tripcocks (not in the Rule Book).
- 30) Vigilance equipment (Section 8).
- 31) Warning horn (Section 26).
- 32) Wheel Slide Protection (WSP) (Section 27).

Appendix B List of on-train equipment to be considered for inclusion in DOTE contingency plans

The content of this appendix is non-mandatory.

B.1.1 The content of this appendix details items of on-train equipment which should be considered by railway undertakings for inclusion in their DOTE contingency plans:

- 1) Bodyside windows.
- 2) Cab heating/cooling equipment.
- 3) Fire detection systems.
- 4) Hydraulic buffers.
- 5) On-train emergency equipment .
- 6) Passenger Communication Apparatus (PCA).
- 7) Public Address system – Non-DO trains.
- 8) Train lighting (internal).
- 9) Vehicle couplings.

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Definitions

Other railway undertakings affected

Railway undertakings whose operations may be affected by the DOTE contingency plans of other railway undertakings.

Mainline railway

Mainline railway has the meaning given to it in the Railways and Other Guided Transport Systems (Safety) Regulations 2006 but excluding:

- any railway in Northern Ireland;
- the dedicated high speed railway between London St Pancras International Station and the Channel Tunnel;
- the Channel Tunnel.

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References

The Catalogue of Railway Group Standards gives the current issue number and status of documents published by RSSB. This information is also available from www.rgsonline.co.uk.

RGSC 01	Railway Group Standards Code
RGSC 02	The Standards Manual

Documents referenced in the text

None.

Other relevant documents

Railway Group Standards

GE/RT8000	Rule Book (Modules AC, TW1, TW5)
GM/RT2466	Railway Wheelsets
GO/GN3637	Guidance on Defective On-Train Equipment