



Rail Safety & Standards Board

INFORMATION BULLETIN

Half-Year Safety Performance Report for 2007

RSSB has just published its half yearly review of safety performance to the end of June 2007.

Overall, the level of safety achieved in 2006 was maintained during the first six months of the year. Major injury rates for passengers and members of the workforce were low by historical standards. Trespasser fatality rate remained relatively high, and the number of fatal accidents at level crossings was above the six-month average. The railway has a limited degree of control in those areas that saw increases.

Key features of the report for the period are as follows:

- On 23 February, a passenger received fatal injuries when a train derailed at Grayrigg. This was the first train accident with on-board fatalities since 2004. A further three passengers died in individual accidents in the six months to June, a figure comparable to the passenger fatality rate in other recent half years.
- The number of potentially higher-risk train accidents was similar to 2006, and low by historical standards. There were seven passenger train derailments in the half-year, which is more than the total for 2006. Five of these were caused by landslips or trees on the line. There was no significant change in the number of passenger major injuries. A fall in those arising from slips, trips and falls in stations was offset by a rise in injuries from boarding and alighting accidents.
- One railway worker died in an accident during the period - the first track worker fatality since 2005. The major injury rate for track workers was unchanged from 2006 and remains lower than the levels seen in 2004 and 2005. The major injury rates for train crew and station staff were higher than in 2006, but the differences are not statistically significant.
- The number of people killed while trespassing in the half-year was broadly in line with 2006, and relatively

high compared with previous years. The rise has been due to an increase in adult trespasser fatalities.

- Suicides and suspected suicides reduced from the high numbers seen last year. There was also a drop in major injuries arising from suicide attempts.
- Five pedestrians died after being struck by trains on level crossings; this is slightly above the recent half-year average. Accidents at level crossings also resulted in three fatalities to road vehicle occupants: there were none in 2006. However, the number of collisions between trains and road vehicle crossings was the same as at the half-way point of last year.
- There were fewer reported workforce assaults in the first half of 2007 than were seen in the same period of 2006. The number of physical injuries from staff assaults reduced significantly, as did the total harm arising from assaults.
- Assaults recorded by British Transport Police, the majority of which are on passengers or members of the public, also fell for the first time since the introduction of the National Crime Recording Standard in 2002.
- Two passengers died in accidents in stations between January and June, both the result of incidents at the platform edge.
- The rate of station fatalities per passenger journey has shown steady improvement over recent years. The number of passenger major injuries in stations remained at a similar level to 2006.

The full Half-Year Safety Performance Report may be downloaded free-of-charge from our website: www.rssb.co.uk. For further information, contact **Marcus Dacre, senior safety intelligence analyst** on **020 7904 6752** or email marcus.dacre@rssb.co.uk

Safety Decisions

RSSB published a key policy document 'Taking safe decisions' earlier in the year, and it is available on the RSSB website at http://www.rssb.co.uk/pdf/safety/taking_safe_decisions.pdf. In support of



this policy document, two further documents are planned, one technical note which will document the basis of the policy and guidance, and the second will consolidate industry guidance as to how to apply the principles.

The Office of Rail Regulation is reviewing the range of guidance on how to apply Cost Benefit Analysis to safety decisions that is currently published by HSE, ORR and the HMRI with a view to consolidating it into one document for both inspectors and industry. ORR will be consulting on its proposals and hopes to conclude the process before the end of 2007.

In light of the ORR approach and forthcoming consultation, the RSSB guidance document will be delayed until the process is complete. In order that our guidance relating to Cost Benefit Analysis is consistent with the outcome from the ORR's consultation. RSSB therefore expects to publish the guidance document early in 2008.

For more information, or an update on the safety decisions programme please contact George Bearfield, programme co-ordinator on 020 7904 7706 or email george.bearfield@rssb.co.uk

Standards News

Authorised for publication or withdrawal in the August 2007 Catalogue

Withdrawals

- **GE/RT8063 Deterring Unauthorised Access and Vandalism**

Withdrawn - None of the measures contained in GE/RT8063 meet the risk scope test set out in the Railway Group Standards Code (issue two, 2006). They have, therefore been withdrawn.

- **GE/RT8000/TS6 Out-of-Gauge Load Instructions**

Although module TS6 itself is being withdrawn, the requirements governing the signalling of out-of-gauge loads are being transferred to module TS1.

Publications

- **GO/RT3208 Arrangements Concerning the Non-Operation of Track Circuits During the Leaf-Fall Contamination Period**

This Standard mandates the means of identifying the need for, introduction and subsequent removal of, restrictions to normal operations in the event of significant problems being encountered during the Autumn leaf fall period.

- **ATOC/GPG0015 ATOC Good Practice Guide – Control of Smoking**

This Guide provides advice on meeting the requirements of the English and Welsh Smoke Free legislation effective from July and April 2007 respectively and adoption of a common Railway Undertaking approach to smoking more generally.

- **ATOC/GPG0016 ATOC Good Practice Guide – Management of Sub-Standard Performance by Train Drivers**

This Guide sets out factors to be considered when seeking to identify sub-standard performance on the part of train drivers and determine its cause(s), along with suggested components of development programmes aimed at addressing such performance.

- **RT3198 06/07 Possession Arrangements Form (T3)**

This form is used by the PICOP to record the arrangements for a possession of a running line. An example of this form is found in Rule Book module T3.

- **RT3199 06/07 Engineering Supervisor's Certificate**

Form RT3199, Engineering Supervisor's Certificate, is used to record details of when an engineering supervisor is permitted to start work at a worksite by a PICOP. It is also used for recording the details when a COSS is given authority to start work within the engineering supervisors work site. An example of this form is found in Rule Book module T3.

- **GE/RT8000/BRIEF Rule Book Briefing Leaflet**

Rule Book briefing leaflet (December 2007) contains details to changes to the train signalling regulations (modules TS1 to TS5, TS7 and TS8). These modules are issued in June 2007 and have an implementation period of 6 months until 01 December 2007 to allow for all signallers to be briefed on the changes.

More modules, also coming into force in December 2007, will be published in October 2007. A separate briefing leaflet will be produced for those changes.



- **GE/RT8000/TS1 General Signalling Regulations (Train Signalling Modules TS1 to TS5, TS7 and TS8)**

The reissue of the suite of TS modules is the culmination of the biggest review of the train signalling regulations since the early 1980s. The content of each TS module had been reviewed to establish their relationship with other Rule Book modules and what requirements remain fit for purpose. Out of date instructions have been removed and rules which are only applicable to a handful of locations have been transferred to Network Rail for inclusion in publications such as the Sectional Appendix or Signal Box Special Instructions (SBSIs) as appropriate. They have been rewritten to ensure that they are more easily understood.

These modules are issued in June 2007 and have an implementation period of 6 months until 01 December 2007 to allow for all signallers to be briefed on the changes.

For more details on changes to standards, please refer to the 'What's New' and 'Briefing Note' sections in www.RGSONline.co.uk or contact **Marie Marks head of standards management** on **020 7904 7588** or email marie.marks@rssb.co.uk

Train Driving RGS Update

GO/RT3251 Train Driving issue five is being updated and was available for industry consultation from 31 August 2007. Under the Strategy for Standards Management, measures that were contained in issue four but that do not relate to an interface are proposed for withdrawal. The resulting revision will therefore contain only three mandatory measures, relating to minimum age, visual acuity and hearing standards.

Following substantial work with industry representatives, it has been agreed that GO/RC3551, the accompanying RACoP will be withdrawn, and replaced by a suite of good practice guides and guidance. These documents include the following, which are all out for consultation at the same time as GO/RT3251:

RS/702 Good Practice Guide on Driver Assessment
RS/221 Good Practice Guide on Driver Training
RS/232 Good Practice Guide on Cognitive and Individual Risk Factors
RS/508 Good Practice Guide on the Safe Use of Medicines in the Rail Industry
GO/GN3651 Guidance on Visual Correction for Train Drivers.

These documents draw on the content of the existing GO/RC3551 but expand and update it with current best practice gathered from industry. RSSB would like to thank everyone who took part in workshops, provided photographs and invested time in this work.

Consultation for the train driving suite is due to end on 12 October 2007. Stakeholders can access the consultation documents at www.rssb.co.uk. It is anticipated that the new documents will be issued in April 2008 and the GO/RT3251 would come into force on 07 June 2008.

For more details please contact **Louise Webb, project manager** on **020 7904 7021** or email louise.webb@rssb.co.uk

GSM-R – Operational Testing in Strathclyde

Between 18 June 2007 and 4 July 2007 operational testing was undertaken in Strathclyde on the proposed trial route A. This testing used a comprehensive set of operational test specifications developed by RSSB for the purpose of validating the concept of operation for GSM-R with specific emphasis on the use of the cab mobile and the fixed terminal (ie driver - signaller communications). The aim of this testing was to demonstrate that the GSM-R system (including the operational concept, rules of operation and user procedures) could deliver the requirements of the system's users. This included testing of the voice protocols that have been specifically produced to support the operation of GSM-R.

This phase of the operational testing follows earlier operational testing activities undertaken in a theoretical environment (a desktop exercise) and in a simulated environment (using desk based radios and fixed terminals).

The operational testing, undertaken on route A of the proposed Strathclyde trial area, was the first opportunity to carry out operational testing using the equipment installed on trains and in signal boxes, and operated by trained drivers and signallers.



The results of the tests uncovered a number of operational and technical issues, which will require further investigation and resolution. These issues have been fed back into the GSM-R programme to the appropriate owners and are currently being evaluated and resolved.

RSSB is working within the GSM-R programme on the operational design validation and through its standards units to ensure the relevant rules and standards are in place for the GSM-R trial to be held in Strathclyde.

For more details contact **Natalia Boniface, project manager, GSM-R** on **020 7904 7967** or email natalia.boniface@rssb.co.uk

Track Safety and Railway Group Standards

Since April 2007, the suite of Railway Group Standards (RGS) relating to personal track safety and the roles involved in providing safe systems of work have all been withdrawn. No new RGS has replaced them.

The instructions in the Rule Book for walking and working on or near the line, including work on rail vehicles, remain and will continue in force.

The withdrawn standards are:

- GE/RT8067 Personal Track Safety (PTS), defining general requirements for the safe planning of work and also medical fitness and competence requirements to be met for PTS certification
- GO/RT3352 Lookouts and Site Wardens
- GO/RT3358 Persons Responsible for Protecting Work On or Near the Line (and its associated Code of Practice, GO/RC3558), covering Controllers of Site Safety (COSS) and Designated Persons (DP).

The principal reason for withdrawal, explained in the briefing notes and consultation material, was that the responsibility for assessing the risks to its staff and contractors when on the track, and defining controls for those risks, rests with each duty holder as a matter of law (Health and Safety at Work Act and regulations, and also the Railways and Other Guided Transport Systems (Safety) Regulations 2006 [ROGS]). Most of the

requirements of these documents were focused on Network Rail, though the documents as a whole applied to railway undertakings (train operators) as well.

RSSB has worked with Network Rail to phase the withdrawals to coincide with publication of their company document to provide the necessary controls for all infrastructure work for which Network Rail is responsible. The Network Rail document is NR/SP/CTM/021, Competence and Training in Track Safety. It includes medical fitness requirements for infrastructure work carried out by employees of Network Rail or its contractors. To obtain Network Rail's document NR/SP/CTM/021 please contact HIS Technical Indexes on 01344 328039.

At the request of Traffic Operation and Management Standards Committee, RSSB has produced a guidance note (GE/GN8511 - Guidance to Railway Undertakings on Track Safety), which will be issued in October 2007. It gives guidance to railway undertakings when developing and managing track safety processes and procedures for their own staff, mainly in depots and other locations not on Network Rail's managed infrastructure. It covers subjects outside the scope of the Rule Book, such as competence and medical fitness, authorised walking routes and track safety certification.

For more details contact **Richard Evans head of delivery unit, traffic operation and management** on **020 7904 7633** or email richard.evans@rssb.co.uk

Got an issue with a Railway Group Standard? Call the **RSSB Enquiry Desk** on **020 7904 7518** or email enquirydesk@rssb.co.uk

The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS) One-Year-On Conference 8 November 2007

Places are rapidly being taken up for this event at the Wellcome Conference Centre in London. This interactive event aims to provide managers in mainline transport operators with an opportunity to share and learn from the safety management system development and application experience of key players in the UK rail



James Hardy



industry as well as hear about wider European developments from the European Rail Agency. In addition to the informative presentations, delegates will also be able to participate in “Question and Answer” forums with the speakers and in specialist breakout workshops on the following key aspects, safety verification and interoperability, safety critical work, safety reporting and duty of co-operation. There will also be an interactive exhibition to demonstrate the latest developments in safety management systems.

If you haven't yet registered, and are interested in attending, please follow the link to the RSSB website:

http://www.rssb.co.uk/national_programmes/sms_rogs_authorisation.asp. Alternatively contact **Stella Okezie, conference manager** on **020 7904 7934** or email stella.okezie@rssb.co.uk for further information or to register.

Sharing of high-level Safety Management System documentation

At the request of our members, RSSB has implemented a short term enhancement to SMIS so that it can host Office of Rail Regulation ‘accepted’ ROGS safety certificates and authorisation submissions which describe aspects of duty holder safety management system. The SMIS system was chosen as the platform because it provided a rapid and low-cost solution, as well as limiting access to duty holders only.

The facility enables ‘accepted’ situations to be posted and accessed by all duty holders. It also provides the opportunity for members to inform affected parties of any subsequent changes to safety management systems by means of a brief and posting of amended documents.

All RSSB members with ‘accepted’ submissions are being approached to provide their documents, if they have not already done so. The possibility of also providing a link to duty holders full safety management systems is currently being explored.

For more information please contact **Nigel Finney, sms specialist** on **020 7904 7940** or email nigel.finney@rssb.co.uk

James Hardy is the new Head of Research and Development (R&D) at RSSB. James moved to RSSB from the Highways Agency, where he held a similar position in charge of its research and development programme. James is a chartered civil engineer who has experience of safety critical environments gained in the nuclear and offshore fields.

The role involves responsibility for managing the industry R&D programme of around £12 million per annum. The programme is a key component of RSSB's activity and informs and draws on other aspects of the organisation's work. The programme is funded by the Department for Transport and delivers industry-wide research that no individual company or sector can address on its own. In recent years it has shifted from a focus solely on safety, towards a broadly based business agenda.

James Hardy reports to Anson Jack, RSSB's Director of Policy, Research and Risk.

James Hardy's other experience includes design and implementation of an asset management system, network management – maintenance and renewals, and performance optimisation as well as change management and facilitation.

James can be contacted on **020 7557 4620** or email james.hardy@rssb.co.uk

Award for VTISM Project

The Vehicle Track Interaction Strategic Model (VTISM), entered jointly by RSSB, Network Rail, Serco and DeltaRail, won the Innovation of the Year award jointly with GNER at the National Rail Awards 2007.



VTISM is a PC-based software model which links track and vehicle characteristics and asset management strategy to costs. This enables substantial savings by optimising vehicle-track system changes and maintenance. VTISM was developed by all four parties working together in partnership.

For more information contact **Paul Richards, senior research manager** on **020 7557 4609** or email paul.richards@rssb.co.uk

Events

| Date | Name of event | Location |
|------------------|---------------------------------|-------------------------------------|
| 31 October 2007 | Railways – A Sustainable Future | The Wellcome Centre, Euston, London |
| 8 November 2007 | The ROGS One-Year-On Conference | The Wellcome Centre, Euston, London |
| 27 November 2007 | Yellow Book Conference | The Congress Centre, London |

For more information on these events, please contact **Stella Okezie, conference manager** on **020 7904 7934** or email stella.okezie@rssb.co.uk

Spotlight

Yellow Book Issue 4



Engineering Safety Management (or the Yellow Book as it is more commonly known) is a handbook designed to help people who are involved in changes to the railway (such as new trains and signalling) make sure that these changes contribute to improved safety.

The Yellow Book engineering safety management fundamentals were updated and re-issued in 2005 as Yellow Book volume 1 issue 4.

Yellow Book volume 2 issue 4 has been updated and republished as issue 4 to provide guidance that can be used by Engineering Safety Management practitioners to help them apply the fundamentals to their work. The updated guidance takes account of the recent changes to European and UK railway legislation and includes new guidance on how to use Goal Structuring Notation.

The guidance has also been extended to show how it can be applied to railway maintenance as well as projects and a new section has been included to show how Engineering Safety Management should be addressed at all stages of a system life-cycle.

The Yellow Book is published on www.yellowbook-rail.org.uk and is available as a printed version. Up to three copies can be obtained from regional collection points in person. Larger quantities can be ordered from Willsons Printers on 01636 702334.

For details of collection points visit the Yellow Book website

http://www.yellowbookrail.org.uk/site/the_yellow_book/the_yellow_book.html

For more information contact **Richard Barrow, ccs engineer** on **020 7904 6746** or email richard.barrow@rssb.co.uk

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www.rssb.co.uk