



Rail Safety & Standards Board

# INFORMATION BULLETIN

## The Future of Accident Investigation

The industry's accident investigation process has been revised to take account of the Rail Accident Investigation Branch's (RAIB) role and the implementation of Railways and Other Guided Transport Systems (safety) Regulations 2005 (ROGS).

In summary:

- A revised railway group standard, GO/RT 3473 issue 3 came into force 6 January 2007.
- RSSB led Formal Inquiries cease.
- Involvement of industry parties in RAIB investigations may lead duty holders to decide that an industry investigation under GO/RT 3473 is not necessary.
- Duty holders may decide that independent resources to lead or support a formal investigation are appropriate.
- Independent resources for that purpose will be available on request from RSSB.
- RSSB will continue to track responses to recommendations and progress to completion.
- RSSB will provide support to the industry in learning safety lessons from incidents and accidents within the UK, wider Europe and worldwide.

RSSB has closed its Formal Inquiries department, with ongoing activities being transferred to other departments. The learning of lessons from accident investigations, the link to RAIB and tracking of progress of recommendations will be integrated into the Risk and Safety Intelligence department. Steve Burrows will be taking the lead on these matters. As has been the case in previous years, RSSB will publish an annual report for 2006 setting out the progress in discharging recommendations from formal inquiries and key lessons learned.

The provision of independent resources to lead, or provide particular technical support for, an investigation will be facilitated by the Safety Policy department. Requests for such support should in the first instance be made to Lorraine Forster giving details of the subject of the investigation and the grounds for independent resource.

As the industry embarks on these new arrangements it is appropriate to reflect on the effectiveness of the success of the formal inquiry process. The process has enabled the industry itself to thoroughly and consistently investigate accidents and ensure the lessons are learned. Through the cooperation of all parties in this process under independent chairmen or panels the reports, such as those into the accidents at Hatfield, Potters Bar, Ufton Nervet and Elsenham, have demonstrated a comprehensive examination of the events and earned respect and credibility not only in the UK but overseas.

For more information please contact **Steve Burrows**, inquiries manager on 020 7904 7721 or email [steve.burrows@rssb.co.uk](mailto:steve.burrows@rssb.co.uk) or **Lorraine Forster**, policy assistant on 020 7904 7671 or email [lorraine.forster@rssb.co.uk](mailto:lorraine.forster@rssb.co.uk)

## Standards News

### Train Driving – Minimum Age

Age discrimination regulations came into effect in October 2006. Following a question raised by a train operator, RSSB reviewed the minimum age for driving trains unaccompanied - currently 21 - to see if it could be seen as discriminating against younger applicants. RSSB asked a barrister experienced in this field for a legal opinion which we received at the end of November.

The conclusion was that the minimum age could be justified under the new law, as its primary aim was safety. Previous work by RSSB had shown that employing younger drivers could bring some additional risks to safety, as with road transport. However, as a new EU directive is likely to set a minimum age of 20 for driving



international trains, counsel also recommended that RSSB carries out research into the implications of such a change for the British domestic main line rail network.

RSSB is working to put together a proposal for research, to find out if it would be reasonably practicable (the costs involved would be less than the safety benefits) to design and validate a robust selection process, to deal with any additional risks from recruiting younger drivers who would complete their training and drive unsupervised at an age less than 21.

The research which is likely to be finalised late in 2007 will take account of the application of technical train protection and warning measures since the minimum age of 21 was first set. If a reasonably practicable selection process can be identified, it will still be necessary to be tested to validate it. In the meantime, the present minimum age can be justified and will remain in place. London Underground sets 18 as their minimum driving age but their trains and signals have been equipped with 'train stop' systems for many years, and their top speeds are slower than on the main line network. In practice, there are very few London Underground train drivers under 21.

Age is also used to set the timing of periodic medical assessments for drivers and some other safety critical staff. Though age-based, these criteria do not contravene the new law. If someone is unfortunate enough to have to change their job for medical reasons, the manager's decision must be based on professional medical advice which takes account of the potential risk (from the illness or medical condition) to the safety of rail operations and the individual involved.

For more information please contact **Richard Evans**, head of delivery, traffic operation and management on **020 7904 7633** or email [richard.evans@rssb.co.uk](mailto:richard.evans@rssb.co.uk)

## New Deviation Application and Proposal Forms

Following consultation with stakeholders, RSSB has developed new deviation application and proposal forms, which will replace the existing forms.

The new forms contain straightforward guidance that will assist the applicant in the completion of the form. By helping applicants to better understand what is required, the guidance aims to improve the quality of information

provided and therefore reduce the number that get deferred by Standards Committees (committee made up of industry representatives) as a result from insufficient detail.

The new forms came into force on 2 January 2007 and they are available on the RSSB website ([www.rssb.co.uk/revdev.asp](http://www.rssb.co.uk/revdev.asp)). Please remove any links you may have to the old forms and download new forms as soon as possible.

As a further change to make life easier for applicants for a non-compliance, a 'proposal for RSSB document change' form is no longer required - RSSB will automatically raise the necessary proposal on your behalf.

RSSB initiated the review of the forms following requests from stakeholders. The new forms were developed with input from stakeholders including standards committees. The form was circulated for industry consultation and comments received resulted in further improvements to the form. This should speed up the process for applications.

For more information please contact **Anna Appicella**, proposals manager on **020 7904 7550** or email [anna.appicella@rssb.co.uk](mailto:anna.appicella@rssb.co.uk)

## GSM-R – The Operational Concept

The Operational Concept has been developed by RSSB as part of the industry's implementation of GSM-R radio communications to the UK railway system. It describes the conceptual operation of GSM-R and how the system is envisaged as operating from the point of view of the direct users of GSM-R. This includes roles such as the Driver, Signaller, Route Controller, Shunter and Maintainer. It provides a high-level narrative description and the best view of how the system will operate that is available currently.

In February 2006 the Operational Concept was entered into the industry standards process and subject to industry consultation. Following extensive consultation and development, the content was approved by a Multi-Functional Standards Committee who recommended its submission to the RSSB Board for endorsement as a relevant strategy. On 14 December 2006 the Operational Concept was endorsed by the RSSB Board for publication as a relevant strategy under the Railway Group Standards Code.

The Operational Concept provides the strategic framework for Railway Group Standards (including national operating rules in the Rule Book GE/RT8000) to be produced or revised as a result of GSM-R. The Operational Concept itself will also be subject to further revision, particularly experience gained from the forthcoming Strathclyde Trial.



RSSB is working within the GSM-R programme and through its delivery units to ensure the Operational Concept and all relevant rules and standards are in place in time for the GSM-R trial to be held in Strathclyde.

For more information please contact **Natalia Boniface**, project manager – new systems on **020 7904 7967** or email [natalia.boniface@rssb.co.uk](mailto:natalia.boniface@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](mailto:enquirydesk@rssb.co.uk).

If that doesn't sort out the issue – let me know. **Anson Jack**, director, standards on **020 7904 7703**.

## Workforce Safety Performance Report

RSSB published the workforce safety performance report (which includes data up to 31 July 2006) on the risk to the railway workforce. It examines fatalities and weighted injuries (FWIs) and trends related to injuries within possessions, irregular working incidents, shunting, runaways, train accidents, workforce shock / trauma, incidents on stations and incidents on trains. The latest initiatives to improve safety are also presented, along with contact details to encourage the sharing of ideas across the industry. On 31 October 2006, a tamper unit struck a stationary ballast regulator near Bristol. Four members of the workforce (one with major injuries) were taken to nearby hospitals, including the drivers of both machines.

While this incident fell outside the timeframe of the report, its occurrence provides a reminder that the trackside is a dangerous place for railway staff. Considerable risk is involved with the marshalling of trains. Even in this era of automatic coupling, manual methods are used to attach and detach vehicles. Recent statistics show that the individual risk to shunters is high compared to other workers in the industry.

In addition to its presentation of shunter risk, the report examines trends related to injuries within possessions, irregular working incidents, runaways, train accidents,

workforce shock / trauma, incidents on stations and incidents on trains. The latest initiatives to improve safety are also presented, along with contact details to encourage the sharing of ideas across the industry. Some of the key points made in the analysis are as follows:

- In the year to 31 July 2006, two members of the workforce were killed. This compares with six in the year to July 2005.
- Workforce harm (in terms of major injuries) has improved, with a 26% reduction in major injuries from the previous year (70 for Jan-Jul 2006, against 95 for Jan-Jul 2005). At its peak in 2004, there was an average of 17.3 major injuries per month, compared to an average of 10 in 2006 (up to July). This represents a 42% reduction.
- While the fatality rate for the construction industry (as a whole) is around two thirds that of the railway industry (as a whole), the fatality rate for road construction operatives is some 45% higher than for track workers.
- The five-year average for workforce minor injuries is 6,736 per year, and there is no tangible minor injury trend between 2001 and 2006. Of those members who sustained minor injuries, 18% attended hospital.
- Numbers of workforce on-train injuries have remained broadly consistent: there were 1,341 such injuries in the first seven months of 2006, compared to 1,307 for the same period in 2005. Most were the result of assaults on train guards.
- Five incidents of runaway trains that could have injured workers on or about the track were recorded between January and July 2006; this is an improvement on the nine seen during the same period of 2005.

More information on workforce safety will be presented in the Annual Safety Performance Report (covering the 2006 calendar year). However, for more information on the issues noted above, contact **Claire Chambers**, senior safety analyst, on **020 7904 7496** or email [claire.chambers@rssb.co.uk](mailto:claire.chambers@rssb.co.uk)





## Events

Date	Name of event	Location
14 March 2007	Community Safety Forum	Aston Villa Conference Centre, Aston, Birmingham
28 March 2007	System Interface Committees Seminar – Optimising the Future Railway <a href="http://www.imeche.org.uk/event/s/events.asp?year=2007">www.imeche.org.uk/event/s/events.asp?year=2007</a>	IMechE London
29 March 2007	Simulation Seminar	Lakeside, Aston Business School, Birmingham
May 2007	Human Factors Seminar on Fatigue	Date and Venue tbc
19 - 20 June 2007	Risk Management Forum	Nottingham University, Nottingham
September 2007	Driver Training and Management Event	Date and Venue tbc

If you would like to receive further information about these events please contact **Stella Okezie, acting conference manager** on **020 7904 7934** or email [stella.okezie@rssb.co.uk](mailto:stella.okezie@rssb.co.uk).

## Spotlight

### Latest upgrade – SMIS 7

The Safety Management Information System (SMIS) is used by all Railway Group Members to record all safety related accidents and incidents that occur on Network Rail's managed infrastructure. This assists the industry in analysing risk, predicting trends and focussing on major areas of safety concern.

As part of RSSB's on-going commitment to help the industry with recording safety related data, a major upgrade to SMIS (version 7) was implemented on Monday 27 November. Although there were some initial performance issues that have now been resolved, a summary of the benefits is shown below:

A new process for recording and analysing irregular working events. This will lead to an improvement in data which will provide the industry with a better understanding of the types of irregular working events that occur. This will help the industry to implement counter-measures and plans in its attempts to reduce the overall numbers of these incidents.

Recording signals passed at danger (SPADs) in SMIS has been revised to match changes made by industry to Railway Group Standard GO/RT3252 – Signals passed at danger. Updating SMIS to match GO/RT3252 will ensure the appropriateness and integrity of the data collected on SPADs is maintained throughout the industry.

Greater flexibility in meeting future safety reporting requirements resulting from statutory bodies and Railway Group Standards.

The SMIS data extraction tool, Business Objects Enterprise, has been upgraded to the latest version (XI).

The causation module has been redesigned, which will result in an improvement to data quality. This will also assist the industry in implementing counter measures and plans to reduce the overall number of safety events that occur each year.

Improving the quality of injury data by displaying in SMIS RSSB's 'cleansed view' of such data, and by categorising injuries in accordance with the hazardous events and precursors in RSSB's Safety Risk Model. This will assist the industry in the preparation of the risk assessments within their safety cases and other analyses.

The recommendation tracking module has been redesigned and simplified to meet the industry's requirements. These changes will reduce the burden on the industry's SMIS data entry staff, will make the process for recording and tracking recommendations easier and will assist the industry in adopting a single method to record recommendations resulting from inquires and investigations.

A new user-friendly message to advise the industry's SMIS data entry staff when data has been saved.

For more information please contact **Jeff Brewer, SMIS business manager** on **020 7904 7509** or by email at [jeff.brewer@rssb.co.uk](mailto:jeff.brewer@rssb.co.uk).

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