

# RIMINI – TOWARDS IMPROVING TRACK WORKER SAFETY

IoRO chairman Chris Leah explains how new standards are helping to provide greater protection for track workers

In December 2002, Network Rail issued a new Company Standard (RT/LS/S/019) [RIMINI] governing the safety of persons working on or near the line. In response to its own concerns, as well as those expressed by HMRI and the unions, about giving greater protection to track workers, this new standard represented a significant change in thinking and was designed to move substantial amounts of work from red to green zone, thus affording a greater level of protection.

Previous standards had required a simple risk assessment to justify red zone working. However, with more trains using the network, many at higher speeds, the growing trend of track worker accidents and the need to carry out more maintenance, this method was no longer acceptable. The RIMINI Standard requires safe systems of work to be planned in advance using

the best protection level available – ranging from 'safe guarded green zone' down to 'red zone with lookouts' through an eight-level hierarchy.

The concept was that, in addition to the safety benefit from a consistent and rigorous approach, better planning would produce better utilisation and productivity of people and plant, and hence reduce costs and boost output.

The justification for RIMINI (putting aside the Enforcement Order by HMRI) was based on three factors.

- 1 Safety – it was envisaged that RIMINI would lead to a reduction in fatality rates and serious injuries caused by workers being struck by trains.
- 2 Costs – there would be an increase in costs as a result of RIMINI implementation plus extra resources needed for proactive planning.
- 3 Performance and operational efficiencies – these would include benefits from the increased use of

automatic working systems and a reduction in the need for lookouts.

An analysis of the data available on track worker safety reveals:

- 1 In the five years prior to the introduction of RIMINI, 12 track workers were killed by trains; since the introduction of RIMINI there have been no deaths.
- 2 However, non-fatal strikes by trains have remained constant at an average of nearly two a year over the last seven years.
- 3 It is difficult to quantify accurately the increase of green zone working, but anecdotal research shows that it has increased.

However, it is early days to conclude, without doubt, the benefits. The infrequency of accidents and the short time since introduction mean that no trend is yet statistically significant – but so far, so good. RIMINI does involve a shift in culture and work practice. This all takes time.

The system is not without its critics, who point out that planning resources were underestimated and that track worker productivity and train service performance has not measurably improved, citing restricted access, cancelled blockages and longer set-up times. The lack of proactive work planning as a result of reacting to immediate events was starkly highlighted.

The movement of maintenance 'in-house' to Network Rail (completed on 24 July 2004) has given an opportunity to drive home improvements to the RIMINI system. The Standard is as much about pre-planning on-track activity as it is about moving work from red to green zones. It was assumed, perhaps optimistically, that the introduction of a safety standard would ensure that maintenance and renewals

work would be properly planned in advance and that the work would be delivered at the time and date specified. This has proved to be a problem. Maintenance teams find it difficult to keep to agreed plans because of the high proportion of short-notice, reactive work. This often results in a conflict between pre-planning safety systems of work and delivering efficiently the required volume of maintenance and renewals. This in turn can cause loss of productivity, additional signalling workload and more bureaucracy.

Taking all this into account, Network Rail has now started to take steps to address these deficiencies, as the principle of pre-planning all aspects of on-track activity is essential and one which the business is striving to achieve. The achievement of a zero fatality rate represents a marked change from the past, even if it is not as yet statistically significant. In part RIMINI was introduced as a response to safety concerns expressed by HMRI and the threat of an Improvement Notice – there would need to be a replacement system. This will come about through the evolution of the end-to-end maintenance programme.

The improvements to be made to RIMINI will make it an important factor in improving the quality of rail maintenance. The full picture embraces bringing maintenance in-house, ensuring consistency of systems and processes across the contract areas, bringing in high quality and consistent competency requirements and training methods, and the national use of the MIMS system – all underpinned by a safety system of access under RIMINI.

*The author is Network Rail's safety and compliance director*

## EIGHT-LEVEL HIERARCHY

### 1. Safeguarded Green Zone, unless:

The required blockage(s) of the line(s) are not available.

### 2. Fenced Green Zone, unless:

The required blockage(s) of the line(s) are not available or  
The time required to erect and dismantle fencing is disproportionate.

### 3. Separated Green Zone, unless:

The required blockage(s) of the line(s) are not available.

### 4. Red Zone with warning given by automatic track warning system (ATWS), unless:

The time required to plan, install and remove ATWS is disproportionate or  
The required equipment is not available or  
The equipment is not suitable for the location.

### 5. Red Zone with warning given by train operated warning system (TOWS)

Supplemented where necessary by other methods of warning, unless:  
TOWS is not available at the location.

### 6. Red Zone with warning given by lookout-operated warning system (LOWS) unless:

The time required to plan, install and remove LOWS is disproportionate or  
The required equipment is not available.

### 7. Red Zone with warning given by lookout using Pee Wee, unless:

There is no requirement to use a distant lookout or  
The time required to plan, install and remove Pee Wee is disproportionate or  
The required equipment is not available.

### 8. Red Zone with warning given by unassisted lookout

This shall always be regarded as the last resort.

The article 'Giving the right signals' in the October issue was written by Chris Exley, not Clive Exley as stated. We apologise for the error.

## THE INSTITUTION OF RAILWAY OPERATORS

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### PROFESSIONAL QUALIFICATIONS FOR RAILWAY OPERATORS

Have you got experience of operating the railway? Would you like professional recognition, development and qualifications? The Institution of Railway Operators has been established to provide a professional structure and qualifications for people with knowledge and experience of operating the railway, at all levels.

An information pack is available for anyone interested in finding out more about the Institution and its education programme. Please contact Claire Wickes at the above address if you would like a pack for yourself or colleagues.

### EDUCATION PROGRAMME NEWS

The Institution congratulates the latest two students who have successfully completed the Associate Course and

achieved Associate status: Tricia Meade and Stephen Grant. The Institution's Education Programme is a distance-learning course, which you do at your own speed (within the overall timeframe allowed) and in your own time – there are no classes or lectures to attend, only modules to complete and submit as each one is completed. A support system of mentors, tutors and peer support is available to provide you with help and support throughout the programme.

Included in your study period will be a residential weekend school. This enables you to discuss all the modules within the programme and listen to presentations and debate current issues with senior managers from various parts of the rail industry. Visits are also included to major heavy and light rail centres such as tram and metro systems, operations and signalling, major stations and freight operations.

Steps are now being taken to have the programme accredited by a university.

Anyone interested in enrolling in either the Associate Course or (if you are already at Associate level) the Member Course is invited to contact Mike Hill on 01344 875328 or [education@railwayoperators.org](mailto:education@railwayoperators.org) for further information and an enrolment form.

### MEMBERS' NEWS

The following employers operate a Corporate Membership scheme, by paying a one-off annual fee that covers all their employees' Affiliate or Associate membership subscriptions: Network Rail, Eurostar UK Ltd ScotRail, Central Trains, EWS Railway, Northern Ireland Railways, Freightliner, Virgin Trains, First North Western, South Eastern Trains, Corus Rail Consultancy,

Iarnr Éireann, Go-Ahead Group (Southern, Thameslink), Transport for London/London Underground Ltd/Docklands Light Railway, Arriva Trains Wales (formerly Wales and Borders), Stagecoach Rail (South West Trains, Island Line, Sheffield Supertram), GB Railways (GB Railfreight, Hull Trains), First Great Western and First Great Western Link (formerly Thames Trains), London Lines (c2c, Great Northern and Silverlink Trains), One (formerly Anglia Trains, First Great Eastern and West Anglia).

Those with full Membership will continue to pay their subscription personally, irrespective of whether they can subsequently claim it back. Please note that, as the IoRO's subscriptions are tax-deductible, a receipt will be issued for all payments, whether made by cheque, standing order or internet payment.

## DIARY OF EVENTS

### SCOTTISH AREA

**Tuesday 2 November 2004** - 1730 for 1800, Edinburgh. Anyone who missed last year's excellent talk to the Scottish Area by our member, Willie Black, on the Caledonian Sleepers (which incidentally are Britain's longest domestic passenger trains) are welcome to hear an updated version at Jurys Inn, 43 Jeffrey Street, Edinburgh. Planning and running the Sleepers brings into focus probably the widest range of operating in one train service, and so this fascinating talk will be particularly beneficial for those studying for the Train Planning and Performance Module of the Associate Course of the IoRO. This talk is given as part of the CILT Scottish Annual Rail Event, to which members of the IoRO have kindly been invited.

**Monday 15 November** - 1730 for 1800 Glasgow. With the educational programme now well under way, the Area is holding a presentation on 15 November to assist rail organisations to appreciate its content and scope. This meeting is aimed at managers whose staff may wish to undertake the course of study, and those present will also discuss ideas for the future activities of the Area.

**Tuesday 23 November** - 1730 for 1800, Aberdeen. IoRO members are invited to attend a CILT talk in First's training room, 395 King Street, Aberdeen by Cllr Martin Ford, chair of the NE Scotland Rail Freight Development Group, on Rail Freight Developments including the proposed Mossend-Elgin gauge enhancement for 9'6" containers. All are welcome (but please do not park in the bus depot).

For information on all Scottish events and matters, please contact [Scottish@railwayoperators.org](mailto:Scottish@railwayoperators.org) or phone Jim Summers, Acting Chairman, on 01324 625284.

### NORTH WEST AREA

John Gwynne, an Associate member, reports: Fifteen members of the IoRO North West section enjoyed a visit to CCL (Competence and Compliance Ltd) Training Centre at Crewe on Wednesday 15 September. After refreshments, gratefully enjoyed, Clive Jackson, Training Services Director, and Robert Thrower, Operations Director, gave a brief history of CCL, and the story of the 323 Simulator being located at Crewe.

Previously owned by BR, the simulator ended up in the Tyseley Railway Museum from where CCL persuaded its owners Porterbrook to allow them to relocate it to Crewe. A visit to the simulator followed where the details of the facility were explained. It has been retro fitted to keep the cab up to date with 323s on the network including the addition of TPWS. All imagery is computer generated with the ability to add extra models if required. Drivers are taught to run the 323 in any type of weather conditions, day or night, clear weather or fog. The ability to practise in these situations in the facility showed the benefit that it must bring to TOCs in maintaining the standards required of today's drivers.

Having been placed in the 'seat' and given the chance to drive in poor railhead conditions, I attempted to bring the 323 to a stand at a station on a falling gradient while trying to maintain time. I failed, we overshot the platform! As a signalman, it impressed upon me the effect such conditions have when a driver tries to control a train. Having viewed the simulator, the group was given a guided tour of CCL's training centre with the emphasis on driver training facilities. It was apparent that the centre is readily adaptable to many training uses for the industry. Both our hosts stated that they wished to be able to give the industry something back and not to be seen to be just taking from it. That they took the time to show us around and answer any

questions showed that they are doing just that.

My own thoughts as I left were that they are superbly professional in the centre, have boundless enthusiasm for their approach to training, and are also very proud of what they have achieved. We thank them for a thought-provoking and enjoyable evening.

Please note there will not be a meeting in November 2004.

**Tuesday 7 December 2004** - 1800 for 1830, Manchester. Venue: Manchester Cathedral Visitor Centre. This is a joint meeting with the CILT. Speaker: Stuart Baker, West Coast Route Modernisation Director SRA, on the 'West Coast Route Modernisation Story'.

**Tuesday 25 January 2005** - 1800 for 1830, Liverpool. Venue: The offices of Merseytravel, Hatton Garden, Liverpool. This is a joint meeting with the CILT.

Speaker: Mr Patrick Verwer, Managing Director and Mr Rudi Boersma, Concession Development Manager with Merseyrail, 'Merseyrail: A Model Railway?'

**Wednesday 16 March 2005** Manchester. Chris Leah, Chairman of the IoRO and the North West Area AGM.

To contact the North West area on any matter, please contact Clive Evans on 01270-629009 or e-mail us at: [Northwest@railwayoperators.org](mailto:Northwest@railwayoperators.org)

### MIDLANDS AREA

**Monday 22 November 2004** - visit to a local freight depot.

**Monday 24 January 2005** - presentation on the Cherwell Valley resignalling project.

**Monday 21 February 2005** - provisional date.

**Monday 21 March 2005** - provisional date.

**Monday 25 April 2005** - provisional date.

**Monday 23 May 2005** - provisional date.

**Saturday 18 June 2005** - provisional date.

To contact the Midlands Area on any subject,

please call Julia Stanyard on 0121 345 5030 (NEW NUMBER) or e-mail: [Midlands@railwayoperators.org](mailto:Midlands@railwayoperators.org)

### SOUTH EAST AREA

**Monday 22 November** Carolyn Griffiths, Chief Inspector, Rail Accident and Investigation Branch.

All South East Area meetings take place at the Union Jack Club, Sandell Street, Waterloo. Doors open at 1800 and the talks commence at 1830. To contact the South East area on any subject please e-mail: [Southeast@railwayoperators.org](mailto:Southeast@railwayoperators.org)

### NORTH EAST AREA

North East Area meetings normally take place at 1730 for 1800, at York.

For further news on the IoRO in the North East contact us by e-mail at: [Northeast@railwayoperators.org](mailto:Northeast@railwayoperators.org)

### SOUTH WEST AREA

**Tuesday 30 November** - 1630, Swindon. Venue: 125 House, Swindon. Speaker: Derek Holmes, Head of Operations Services, Network Rail, gives a talk on 'Network Rail, current priorities'.

**Tuesday 28 December** Christmas Social Event. The Area Committee is planning a Christmas Social event on the West Somerset Railway for 28 December, following the pattern of the last few years. This is a very enjoyable event and the ideal thing to blow away the excesses of Christmas fayre! Further information will be circulated to South West Area members, or can be obtained from Tim Maddocks, [tim.maddocks@networkrail.co.uk](mailto:tim.maddocks@networkrail.co.uk) or David Northey, [david.northey@networkrail.co.uk](mailto:david.northey@networkrail.co.uk)

For information on all South West events and matters, contact Lawrie Hall on 01453 822150 or e-mail us at [Southwest@railwayoperators.org](mailto:Southwest@railwayoperators.org)