Welcome to RIHSAC 95

Dilip Sinha, Secretary, RIHSAC

27 February 2014
Trackworker Safety

Mick Cash
10th Anniversary Tebay
Saxilby
Newark RTA
Whitehall Junction
Newark
Near Misses
Underreporting
88,000 track workers - 67,000 of who are in the contractor and agency community.

Director of Safety, ORR:
“mindful of the considerable risks that can arise from safety critical staff working for more than one employer”.

“not conducive to the development of a safe railway”
Hundreds of Contractors and Agency Companies

Estimate 60,000 PTS holders
Zero Hours Contracts
Bogus Self-employed
Yet Network Rail get guarantees around Work and Finance every five years

- CP3 £30bn
- CP4 £35bn
- CP5 £38bn
- CP6 £??bn
• Why then the need for so much contingent labour?

• Why then does Network Rail externalise so much of its work?

• What are the risks of so many interfaces?
However:
There have been changes at Network Rail with the arrival of David Higgins

- More Open
- More Transparent
- Better engagement with the workforce and in particular with the trade unions.
• Lead Union Health and Safety Representatives
• Trade Union representative on SHE
• Slip Trips and Falls programme
Management and Control

– Sentinel 2
– Roles and Responsibilities
– Control of Work
– Contractor/Agency Relationships
Technology

• Monitoring systems
• Train borne systems
• Trackside aids – ZKL, Rearguard etc
• CP5 funding £10m (was £100m)
Culture

- Fair Culture
- Life Saving Rules
- Close call
Risks

- Performance is King
- Cost Cutting
- Pace of Change
Concern coming down the line
Are we seeing maintenance holidays on NR?
• Asset Policies
• Business Critical Rules
• Risk Based Maintenance
Overview and workstreams

Richard Sharp
Stuart Webster Spriggs
ISLG Overview

ISLG is open to all companies who are members of the rail infrastructure contractors’ community that work in the capacity of Principal Contractor for Infrastructure Managers.

ISLG review initiated late 2013 considering: membership, meeting format, frequency, logistics, funding arrangements, purpose and scope.

Early outputs of the review relate to ISLG’s position and relationship with the industry, meeting format and a redefined purpose statement.

Purpose Statement (agreed Dec 2013):

‘ISLG is the GB rail industry forum leading to influence the application of existing HSE legislation, and to proactively drive best practices (to exceed legislative requirements), in a collaborative, collective manner to ensure HSE performance improves across the industry in a sustained way.

This is achieved by the following actions:

– facilitate solutions
– communicate to industry
– influence and lobby industry
– sponsor initiatives’
Current members of ISLG

- Amey
- Atkins Rail
- Babcock Rail
- Balfour Beatty Rail
- BAM Nuttall
- Buckingham Group (new)
- Carillion
- Cleshar (new)
- Colas Rail
- Costain
- Laing O’Rourke

- J Murphy & Sons Ltd
- May Gurney
- Morgan Sindall
- Osborne
- Siemens Rail
- Spence (new)
- Thales Group
- Vinci Construction
- Volker Fitzpatrick
- Volker Rail
Associate members and other stakeholders

- Infrastructure Managers
  - Network Rail (S&SD, IP, NDS, T&RS)
  - London Underground Ltd

- Legislative Bodies
  - ORR & HSE
  - EPA SEPA

- Industry Representatives
  - Rail Industry Contractors Association
  - Rail Plant Association
  - M&EE Group

- Trade Unions (open invite to observe and contribute)
  - RMT
  - TSSA

RSSB provides secretarial and facilitation support
Wider ISLG involvement

- ISLG actively participates in many other industry initiatives:
  - Health & wellbeing project
  - Ballast dust working group
  - Road driving risk project
  - Hand Arm Vibration (HAVs) working group
  - ALO transitional arrangements
  - Track worker safe access strategy
  - Roles and responsibilities
  - Sentinel 2 Project
ISLG Workstreams

- Developed through Problem Definition Statements (PDS)
- PDS’ worked internally or formally passed to RIAG or RIEF for detailed work packages
- PDS’ sponsored by ISLG Member with regular progress updates

Recently completed:
- Common induction
- Site Access Controller Training Package
ISLG Workstreams

Current PDS work:

- Road driving risk management & reporting
- Contingent labour
- People exiting plant
- Fatigue management

New PDS to be developed

- Environmental waste management (RIEF)
- SMIS reporting scope (RIAG)
- Create ALO Working Group to develop BAU process
ORR’s complaints handling process

Sally Williams

27/02/2014
Scope of revision

- Introduces our policy on complaints:
  - Factors to consider when deciding on a course of action
  - Gives a steer on when we might not follow up a complaint
  - Refers to the term *Whistleblower*

- Gives guidance on the process to follow

Factors to consider

- Severity and scale of potential or actual harm;
- Seriousness of any potential breach of the law;
- Knowledge of the duty holder’s H&S performance;
- Any alignment with a planned audit/inspection assessment of the SMS of duty holder;
- Whether another body has the remit and capability to respond.
We may *not* investigate a complaint where

- The complainant wishes to remain anonymous, withholds contact details and/or requests that we do not reveal that a complaint has been made;
- It has been made by an employee and has not already been taken up with the dutyholder or trade unions/employee representative (unless it involves a whistleblower);
- It is from a serial or potentially vexatious complainant and is an overall manager decides no further action is appropriate;
- The complaint concerned a range of issues that are not safety related for example terms and conditions of employment and the health and safety matters in the complaint and not substantive.
ORR RIHSAC Meeting

Len Porter
Chief Executive – RSSB
27 February
Context – Safety is improving

Fatal train accidents

- Train accidents with passenger or workforce fatalities
- Ten-year moving average

Source: ORR for historic data, SMIS for recent data.
Presursor Indicator Model – Train Accidents

Historical PIM trend

Current PIM trend
Industry audit trail

Data is obtained from incident reports, confidential reporting, research activity, and other sources as necessary. It is compiled in the Safety Management Information System (SMIS), other information systems, and research outputs.

Changes are made by the industry through the planning process, through implementing revised standards, or by other operational or engineering measures.

RSSB publications, based on data collected, provide a wide range of information. They include regular reports on safety performance and other topical issues, as well as research reports.

Decisions are taken by recognised industry decision-making bodies, such as standards committees. RSSB provides governance for these industry bodies and owns the outputs (such as standards) on behalf of the industry. Through this route, decisions can be traced back through knowledge to information to valid data.

Data and information are used in modelling and other analytical work conducted by RSSB’s analysts. For example, SMIS data is used in the Safety Risk Model (SRM) and Precursor Indicator Model (PIM), and research results and operational experience are used to populate the Vehicle Track Interaction Strategic Model (VTISM).
The performance/cost/risk challenge
OBJECTIVES:

• **Deliver product**
  - On specification
  - On volume
  - On time

• Maximise asset service life to provide expected ROI

• Operate within corporate and social obligations for safety of life and environmental protection

TO ACHIEVE OBJECTIVE ASSET MUST:

Deliver required reliability, maintainability and availability for planned period of operations

Fit for purpose

Retain technical integrity
Balancing performance with technical integrity

Revenue

Planned unavailability
Unplanned unavailability

Return on investment

Opex

Continuing capital investment

Capex

Time
Balancing performance with technical integrity

Confidence/technical integrity

Confidence/technical integrity

Fitness for purpose

Start-Up

Maximum

Audit

Audit

Audit

Business controls (Management Processes)

Deviation:
- Modifications
- Relaxation of procedures
- Changes in operating & environmental conditions
- Introduction of inadequately competent personnel

Uncontrolled progression

Time
Key Principles

• Safety and technical integrity are non-negotiable

• Need to recognise:
  ▪ a whole-life approach
  ▪ a risk-based, goal-setting approach
  ▪ integrated information handling
  ▪ closer involvement with the stakeholders business objectives
Asset/system management

Policy/Direction/Specification

Guidance/Enforcement

Asset Life-Cycle

Feasibility study | Conceptual and detailed design | Procurement, manufacture, construction | Installation and commissioning | Operations (incl. modifications) | Re-use decommissioning

Asset management tools

Economic | Information | Compliance | Risk Management | Operations, Maintenance & Inspection

Management systems

Finance | Information | Quality | Safety | Environmental | Health

Delivery: Fitness For Purpose i.e performance & technical integrity (RAMS)

Independent Audit/assessment (RAMS)
An overview of asset management

Asset management tools

**Economic**
- Cost-Benefit analysis
- Whole life costing
- Economic modelling
- Partnering / Alliancing

**Information**
- Building Information Modelling (BIM)
- Business & engineering application software
- Data and information management systems
- Simulation modelling

**Compliance**
- Safety, health & environmental management systems (SHE)
- SHE and Regulatory Impact Assessment
- Root cause analysis
- Safety Case/ equivalent classification
- Verification
- Certification
- EC Directives

**Risk Management**
- HAZID, HAZAN, HAZOP
- FTA, ETA, FME(C)A
- Fire & explosion analysis
- Human reliability analysis
- Failure frequency statistics
- QRA
- Critical Systems assessment

**Maintenance & Inspection**
- Technical Integrity Management
- Risk and reliability based maintenance
- Condition monitoring
- Diagnostic eng.
- Risk-based inspection
- Non-intrusive inspection
- Corrosion management

**Operations**
- Business process re-engineering
- Value engineering
- Decision theory
- Logistics management
- Procurement & spares holding management
- Real time management systems
- Technical/failure and accident investigation
Asset/system management

DfT

ORR/Safety Authority

Railway Undertaking

Access Contracts & Cooperation

Infrastructure Manager

RSSB

Supply Chain

Independent Audit/assessment (RAMS)
Industry audit trail

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RSSB publications, based on data collected, provide a wide range of information. They include regular reports on safety performance and other topical issues, as well as research reports.

Changes are made by the industry through the planning process, through implementing revised standards, or by other operational or engineering measures.

Data to decision-making audit trail

Decisions are taken by recognised industry decision-making bodies, such as standards committees. RSSB provides governance for these industry bodies and owns the outputs (such as standards) on behalf of the industry. Through this route, decisions can be traced back through knowledge to information to valid data.

Outputs from RSSB analysis and models, such as the SRM, PIM and VTISM, provide knowledge which helps the industry to develop its understanding of key risks and opportunities on the railway system.
Integrity assurance process

- Design, construction, installation and commissioning data
  - Process data
  - Equipment data
  - Statistical data
- DATABASE
  - Criticality
  - Analysis
  - Reports
- Life-cycle assurance process based on risk
- Inspection management plan
- Data
- Knowledge
- Decisions
Asset Management seeks to...

- Continuously find the optimum balance between cost and risk in order to safely optimise profit/growth
Post Asset Management - cost/risk balance

Risk

£

Expenditure

£
Summary and some questions

- Has our rail industry really understand RAM management and its balance with technical integrity – RAM(S)? Does it have the IM architecture to manage this?

- Who is taking a holistic system view.

- On projects, how often have we moved from requirements definition to procurement, installation and ….re-work? Then blamed cost on standards or safety.

- Do we put enough effort and time into detailed technical specification, system solution definition and detailed planning?
Summary and some questions

- 80% of projects cost are saved in first 20% of project life. This extends to maintenance. Do we really think our possession management has been efficient?

- Have we avoided advanced unproven technical innovation on major projects?

- Have we detached engineers from the commercial consequences of their actions?

- Poor project and overall system management can be very expensive.

- Can we simplify the way we work?
Presursor Indicator Model – Train Accidents

**Historical PIM trend**

**Current PIM trend**

- Infrastructure
- Operating incidents
- Public Behaviour
- Environmental
- SPAD
- Trains and rolling stock

| Year | Jan 99 | Jul 99 | Jan 00 | Jul 00 | Jan 01 | Jul 01 | Jan 02 | Jul 02 | Jan 03 | Jul 03 | Jan 04 | Jul 04 | Jan 05 | Jul 05 | Jan 06 | Jul 06 | Jan 07 | Jul 07 | Jan 08 | Jul 08 | Jan 09 | Jul 09 | Jan 10 | Jul 10 | Jan 11 | Jul 11 | Jan 12 | Jul 12 | Jan 13 | Jul 13 | Jan 14 | Jul 14 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
Summary

• Clear strategy and high level specification
• RAM(S) management
• Agreed working arrangements, common objectives and aligned incentives
• Simplification
• Good relationships
• Systems thinking
• Leadership
Initial Impressions and Implications for Priorities

RIHSAC
27th February 2014

Chris Fenton
RSSB Chief Executive (Designate)
Agenda

• Introduction

• Impressions
  – Sector
  – RSSB

• Priorities
Background

- Material Scientist by training
- Chemical Industry
- Services
  - BSI
  - Amey
  - Tube Lines
- NED at Nuclear Decommissioning Authority

Interfaces

Operational Joint Venture
Finance Public/Private
Commercial Cross-sector
Marketing International
'The rail industry is a success story, carrying high numbers of passengers and goods at record levels of safety and performance and delivering improved value for money. Further improving value for money while continuing to grow and to satisfy customers is one of the industry’s biggest challenges.'

Rail Industry Strategic Business Plan

'Challenges of increased capacity, reduced carbon, lower costs and improved customer satisfaction.'

Rail Technical Strategy

'...analysis shows that the costs Network Rail can most directly control in CP5 should be £1,995m less than in CP4.... Seen in the context of continued growth in passenger demand, this means that the costs of running the railway per passenger km will fall by 28%.'

Office of Rail Regulation

'Latest safety statistics show Britain’s rail industry ranks among the safest in Europe.... But there can be no room for complacency....there is considerable room for improvement in specific areas..... It is now essential the rail industry works as one to deliver an even safer railway.'

Office of Rail Regulation
Impressions

• Challenges
• Complexity
• Commitment
• Operational Focus
• Experience
• Identity
• Safety
Impressions

Risk-based asset management

Sustainability

Innovation

Health and wellbeing

Emphasis switching from “What” to “How”
Impressions RSSB

**Strengths**
- Whole rail “system”
- Independent
- Trusted and respected
- International reputation
- Evidence-based
- Critical mass
- Dedicated staff
- Promotes co-operation

**Opportunities**
- Understanding RSSB role and capabilities
- Engagement with members and stakeholders
- Managing innovation
- Setting priorities
Priority – Strategy into Action

- People
- Passenger
- Freight
- Economy
- System
- Process
RSD business planning for 2014-15

Name        Ian Prosser
Date     27 February 2014
Objective 1: Drive for a safer railway

Highlights for 2014/15

- Exercise our statutory responsibilities in line with our published policies and procedures, including the strategic risk priorities that guide our approach to planned inspection and audit.
- Target at least half of our front-line inspection activity with Network Rail and other rail duty holders.
- Ensure Network Rail delivers our CP5 determination safely, with particular focus on high risk activities, including track, level crossings, workforce safety, electrical isolations and civil structures; we have new dedicated inspection teams in these areas.
- Ensure that Network Rail delivers its own strategies on health, safety and well-being to deliver continuous improvement in its health and safety performance.
- Implement a 5-year programme of interventions to validate London Underground’s SMS, including (in 14-15) infrastructure safety and public safety in relation to escalators.
- Launch our 2014-19 occupational health programme to further encourage duty holder improvements in the leadership, identification, management and control of health risks.
- Ensure that the whole industry acts appropriately in response to identified safety issues, including recommendations made by the Rail Accident Investigation Branch.
- Continue to promote the wider use of our Railway Management Maturity Model (RM3) to measure duty holder and ORR’s performance in the management of health and safety risks.
- Efficient and effective investigations of accidents and incidents and taking related enforcement action.
- Continuing to develop safety policy including revised Railway Safety Regulations, implementation of the Law Commission level crossing report, revised CDM regulations and promotion of industry awareness of European Common Safety Methods and processes to deliver these.
- Deliver our statutory processing of level crossing orders, safety certificates and train driving licenses.

Vision for 2030

- All duty holders to demonstrate excellence in health and safety management so that we consistently see zero industry caused fatalities year-on-year across the rail network by 2030.
- Britain’s railway industry is the world leader in operating networks that protect and promote the health and safety of its passengers, the workforce and the public.
Intervention activities continue to be informed by our strategic risk priorities document – issued Sept. 2012 and under regular review – which identified and prioritised key industry risks and our approach.

Continued inspection, audit and enforcement activity across all sector duty holders, inc. Channel Tunnel

Ongoing delivery of statutory functions (certifications and authorisations, train driving licences and level crossing orders)

Joined-up oversight of Network Rail’s delivery of CP5 determination, with particular focus on:

- level crossings
- track worker safety
- electrical isolations
- civil structures
- OH management
RSD planning assumptions

- Continue to embed industry-led risk-based approach to H&S capability through RM3, including assessment of ORR’s own performance

- Ongoing and new policy work, including
  - delivery of revised Railway Safety Regulations;
  - responding to DfT recommendations to implement the Law Commission level crossing report; and
  - publishing revised guidance on CSM on risk assessment and the revised CDM regulations

- Continue to address key issues identified through our previous inspection work:
  - capability & competence; management of change; and health and safety management systems;

- Ongoing management and engagement on IGC / CTSA and RAIB issues.
Restructure of Network Rail division

To align with the CP5 determination, the RSD Network Rail division is being restructured from 1 April 2014 into:

- 4 dedicated project teams addressing:
  - Track
  - Civil structures
  - Level crossings
  - Electrical and workforce safety
- 5 route teams addressing other risk priorities:
  - London North East
  - Wales, Wessex and Western
  - London North West
  - Scotland
  - South Eastern
Other structural changes since 2013-14

Rather than recording our intervention activity by strategic risk / enabler we now group our intervention activities by sector:

- Train operators;
- Freight Operators;
- Heritage;
- Light Rail;
- London Underground (a new 5 year programme of annual projects); and
- Other Transport for London duty holders.
RSD’s 110.71 FTEs includes the recruitment of a new trainee for the WWW route team and the filling of an existing vacancy in the Scotland Route team.

The increase in management, learning and development resource is due to a more accurate allocation of time more reflecting of what is actually being recorded through ORRtime.

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<th>13-14</th>
<th>14-15</th>
<th>Change</th>
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<tr>
<td>Drive for a safer railway</td>
<td>95.12</td>
<td>91.59</td>
<td>82.7%</td>
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<tr>
<td>Support a better service for customers</td>
<td>0.41</td>
<td>0.40</td>
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<tr>
<td>Secure value for money from the railway</td>
<td>0.36</td>
<td>0.34</td>
<td>0.3%</td>
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<td>Promote an increasingly dynamic and commercially sustainable sector</td>
<td>6.11</td>
<td>4.97</td>
<td>4.5%</td>
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<td>Be a high-performing regulator</td>
<td>0.75</td>
<td>0.58</td>
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<td>Management, learning and development</td>
<td>9.36</td>
<td>12.83</td>
<td>11.6%</td>
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<tr>
<td>Total RSD FTEs</td>
<td>112.11</td>
<td>110.71</td>
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RSD contribution to ORR

- 107.69 RSD FTEs allocated to RSD-led activities;
- 3.02 RSD FTEs allocated to other Directorate activities; and
- 6.29 RSD FTEs allocated to non-safety strategic objectives.

RSD contribution to ORR's non-safety activities

- Be a high-performing regulator: 9%
- Promote an increasingly dynamic and commercially sustainable sector: 79%
- Support a better service for customers: 6%
- Secure value for money from the railway: 5%
Other 2014/15 FTE breakdowns

RSD reactive and proactive inspection resource split

RSD Project / BAU split

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<th>Projects (all non-RSD)</th>
<th>Reactive</th>
<th>Proactive</th>
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<td>System Operator Role - Market review</td>
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<td>European Interoperability Policy</td>
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<td>European railway safety policy</td>
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<td>Risk Based Regulation Roll Out</td>
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<td>Better Regulation programme management</td>
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<td>CMS devolved publishing</td>
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<td>Intranet redevelopment project</td>
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<tr>
<td>Organisational development</td>
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