ORR protects the interests of rail and road users, improving the safety, value and performance of railways and roads today and in the future.

RM³ Workshop

London

6th December 2019
RM³ London Workshop Agenda

09:00-09:25  Registration, welcome tea/coffee
09:25-09:40  Opening Introduction to workshop
09:40-10:15  Transport for London RM³ Presentation
10:15-10:30  Tea / coffee break
10:30-11:05  Amey RM³ Presentation
11:05-11:40  RSSB Taking Safe Decisions and RM³ Presentation
11:40-12:15  ORR RM³ Presentation
12:15-13:00  Lunch and networking opportunity
13:00-16:15  RM³ practical application training
(tea / coffee break at 15:00-15:15)
16:15-16:45  Wash up and group discussion
16:45-17:00  Closing discussion and end of workshop
Welcome Address

Jen Ablitt
Deputy Director, Safety Strategy, Policy and Planning
Head of UK Delegation to Channel Tunnel Safety Authority

Chair of the joint ORR / Rail Industry RM³ Governance Board
The next presentation is from Transport for London (TFL)
Please wait while we change presenters
RM3 within TfL

Cathy Hunsley
Rationale for approach

• TfL is a diverse organisation
• Some predecessor companies have their own history, processes and ways of doing things
• Current approach is “One TfL”
• Not all RM3 criteria are applicable to all business areas
• Commissioner’s target to demonstrate excellence by 2020
Development of approach

- Initially developed in Surface Transport
- Desire for business areas to own the process and complete the assessments themselves
- Need to make assessment as easy as possible and provide comprehensive guidance
- Evidence / guidance provided for one RM3 level only
## RM3 assessment

<table>
<thead>
<tr>
<th>RM3 category, RM3 sub-category, Level 4 description</th>
<th>Direct from ORR guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence, How to check</td>
<td>Developed by HSE team</td>
</tr>
<tr>
<td>How you are meeting the criteria, Quarterly score, Actions</td>
<td>Completed by the business area</td>
</tr>
</tbody>
</table>
Example

• Add link
Output

• Insert figures
Future improvements

• Can we make it simpler?
  – Duplication of evidence

• Improved reporting

• Roll out to the whole of TfL in a beneficial way
Tea / Coffee Break

Please be re-seated promptly for next presentation
The next presentation is from Amey Consulting and Rail
Please wait while we change presenters
Integrating RM³

Amey Consulting & Rail

Rob Doyle – HSEQ Director
An introduction to Amey

You’re one of 66 million people who have used a service we support today.
A bit about us

19,000 employees

£2.2bn turnover

125+ clients

100 years old in 2021

300+ locations

Nearly everyone in the UK benefits from an Amey service each day

Providing services across the UK, Australia and USA

50,000 disadvantaged people supported through our DofE partnership
Target Zero – Our strategic approach

- Delivery of the BU strategy relies on consideration and interface with a number of internal and external factors.
- **RM3** continues to be a central component in the delivery of our strategy.
- Zero LTI by 2021 remains the Amey Target.
- Recognition and mitigation high potential risks.
- Zero Code and Safety Mandates remain as critical success factors.
- Introduction of Beyond Zero thinking and more focus on cultural and behavioural shifts.

Safety Mandates:
- Take 5
- Prep for Safety
- Never accept late changes to plans
- Never override safety devices on plant and equipment

2021 Target = 0 LTI

Critical Success Factors:
- Full employee engagement
- Full Safety Critical Supplier engagement
- Continually think beyond ZERO

**HSEQ Culture change strategy**

- Deployed January (HSEQ)
- Objectives set in February (relevant BSD/ SMT)

Group Assurance

- Improving performance information
- Design
- Behavioural
- Risk Elimination – HSE
- Risk Elimination – Non HSE
- Health & Wellbeing

**Group HSEQ Strategy**


BU Level 2019 Strategic Direction

- **Board Approval – 7th February 2019**
- **ThinkSafe launched**
- **Safety Mandates implemented. Zero Code Implemented. HSE Maturity (suppliers now included). Specific sector BSD/ SMT TZ objectives set.**
- **BU support deployment for Group led initiatives**
- **BU sector BSD/ SMT objectives via TZ capture plan**
- **AD Little review – Implementation in place**
- **Group led Airsweb update – BU supporting**
- **Established BU audit governance in place – Risk Maturity Self-Assessments under development**
Objectives set against our business are based on key inputs:

- Corporate HSEQ Priorities (F4F: Better Skills, Better Support, Better Systems)
- Client Strategy *Sector focus*
- *ThinkSAFE* (Psychology based safety) & Amey staff Survey
- Senior Manager *Risk Maturity* based on *ORR RM³* model
- 2019 Performance
The dynamics of improvement

Specific use of the RM3 within Amey

<table>
<thead>
<tr>
<th>Independent Level 3:</th>
<th>BU – Senior management Cultural Assessment</th>
<th>RM3 2019 Contract facing Self Assessments</th>
</tr>
</thead>
</table>
| • Introduced in 2019  
• Independent 3rd party assessment  
• Used Pan Amey, allowing internal benchmarking and identification of common themes  
• Outputs to be considered for Group level 2020 strategic review. | • RM3 has been used for a number of years at BU level  
• Over 40 senior personnel involved  
• Scoring tracked against previous year giving outcomes based visibility of objectives delivered.  
• Annual movement fed back into TZ capture plans to refresh objectives  
• RM3 2019 – Culture (OC6) : will be used for the first time at senior level. | • Introduced for 2019  
• Rationale for contract to self score and identify action plans as relevant  
• Allows local ownership and accountability  
• Allows collation of self scores to identify any wider commonality  
• Will allow a comparison against senior level RM3 2019 culture survey  
• Fed back into the TZ capture plans |
**Overriding benefits**

<table>
<thead>
<tr>
<th>Result</th>
<th>RM3 Section</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SP</td>
</tr>
<tr>
<td>Excellence</td>
<td>OC</td>
</tr>
<tr>
<td>Predictable</td>
<td>OP</td>
</tr>
<tr>
<td>Standardised</td>
<td>PI&amp;RCS</td>
</tr>
<tr>
<td>Managed</td>
<td>MRA</td>
</tr>
</tbody>
</table>

- Gives an agile framework to evaluate maturity across our business
- Allows us to evaluate both tactically and strategically consistently
- Helps us to focus on key areas for improvement and the impact of any improvement activity

![Diagram showing compliance levels: Compliance, Non-Compliance]
How and when?

Oct/Nov: Data gathering and diagnostics exercise by HSEQ team resulting in capture plan publication

Dec: Board approval of the revised Group HSEQ strategy and inclusion in BU level capture plan

Dec: Business Sector Director facilitated workshops to challenge and define bespoke business sector SMART objectives

Jan: Publication of TZ Brochures

Jan: People manager communication of the TZ plan to their teams and contract leads communication to supply chain
Creating better places to live, work and travel

Putting People First | Delivering Great Service | Creating Better Solutions

Engineering
Facilities
Environment
Utilities
Transport
Defence
Justice

Better Communities
Better Workplaces
Better Journeys
Better Environments
The next presentation is from RSSB
Please wait while we change presenters
Taking Safe Decisions and RM3

December 2019

Ben Gilmartin
Lead System Safety Engineer
A short introduction to Taking Safe Decisions

- RM3 & Taking Safe Decisions
  - Introduction
  - Taking Safe Decisions & RM3

- Taking Safe Decisions
  - Document structure
  - The Taking Safe Decisions framework

- RM3 & Taking Safe Decisions
  - Questions
  - Over to you...

- Taking Safe Decisions
  - Where to go for further help
Taking Safe Decisions
Principles & Framework

Risk Management Maturity Model (RM3)

5 sections

26 elements

5 maturity levels
Risk Management Maturity Model (RM3) & Taking Safe Decisions
Taking Safe Decisions – what’s it all about?

How to go about making decisions in the right way...

- protect safety
- risk-based
- satisfy the law
- commercially sound

- rational
- equitable
- defensible
Taking Safe Decisions – what’s new in 2019?

The underlying principles remain fundamentally unchanged
Taking Safe Decisions 2019 - structure

PART 1
The Taking Safe Decisions framework

PART 2
What are your legal responsibilities for safety risk?

PART 3
When should decisions be taken?

PART 4
Who should take decisions?

PART 5
How should decisions be taken?
PART 1 - The Taking Safe Decisions framework

- **Making changes for commercial reasons**
- **Implementing the change safely**
- **Selecting the right options for change**
- **Making changes for safety reasons**
- **Identifying safety issues**
- **Monitoring safety**
- **Reviewing the change**

**Steps**

1. **Is there a safety concern?**
   - *YES*:
     - Evaluate
     - Analyse
     - Collect information
     - Review
     - Proceed with change?
   - *NO*:
     - Monitor change

2. **Initiate change for safety improvement**
   - Identify hazards
   - Define change
   - Select options
   - Analyze safety of options
   - Scoping problem

3. **Implement change**
   - Risk evaluation and risk acceptance
   - Implement safety measures

4. **Reviewing the change**
   - NO
   - Monitoring safety
   - Identifying safety issues
   - Making changes for safety reasons

5. **Selecting the right options for change**

6. **Implementing the change safely**

7. **Making changes for commercial reasons**

**Framework Overview**

- The process involves evaluating safety concerns, identifying and selecting options, implementing changes, and reviewing the outcomes.
Taking Safe Decisions Principles & Framework

An overview

- MRA1 Proactive monitoring arrangements
- MRA2 Audit
- MRA3 Incident investigation
- MRA4 Management review
- MRA5 Corrective action

PI1 Risk assessment and management

PI2 Objective / target setting

RCS3 Change management (operational, process, organisational and engineering)

RM3 & the Taking Safe Decisions framework
# Taking Safe Decisions & RM3

## RM3 elements related to Taking Safe Decisions framework
- PI1 Risk assessment and management
- PI2 Objective / target setting
- RCS3 Change management (operational, process, organisational and engineering)
- MRA1 Proactive monitoring arrangements
- MRA2 Audit
- MRA3 Incident investigation
- MRA4 Management review
- MRA5 Corrective action

## RM3 elements related to Taking Safe Decisions principles
- SP Policy, leadership and governance
- SP4 Written safety management system
- OC1 Allocation of responsibilities
- OC5 System safety and interface arrangements
- OC6 Organisational culture
- OP1 Worker involvement and internal co-operation
- OP2 Competence management system
- RCS4 Control of contractors and suppliers
**Safety Data**
- Close Call
- Dashboards
- Data requests
- Industry Shared Risk Database
- SMIS

**Analysis & Reporting**
- Accident investigation
- AHSR
- Benchmarking data
- Data requests
- Incident Log Summary
- LOEAR
- Opsweb overseas incident summaries
- PIM
- Rail Accident News
- Rail Investigation Summary
- Route Specific Risk Profile
- RPB
- Safety Performance Reports
- SPAD/TPWS report
- Special Topic Reports

**Guidance**
- CSM for monitoring guidance
- CSM RA guidance
- Duty of Cooperation Guide
- Independent Risk Assessment Review
- Measuring Safety Performance Guidance
- Safety Assurance Guidance
- Safety Management System Guidance
- Taking Safe Decisions
- Taking Safe Decisions worked examples
- VpF

**Collaboration activities**
- Duty to cooperate
- ERA Reps European Update
- HAZID
- HAZOP
- Industry Risk Assessments
- Legislation update
- Rail Risk Portal
- Risk Management Forum
- Standards change
- Workshop facilitation

**Tools**
- Accident Consequence Model
- FLAT
- GeoSRM
- Network Modelling Framework
- PARAT
- PTI risk tool
- Rail Risk Portal
- Risk Profile Tool
- Road Driving Risk Resources
- SPAD risk ranking analyser
- Specific risk model development
- SRM
- TSD – Analysis tool (CBA)
PART 2 - What are your legal responsibilities for safety risk?

Every policy, investment or operational decision taken in the railway industry has a potential impact on safety, and organisations have legal responsibilities for safety.
PART 3 - When should decisions be taken?

When do you take decisions?
When do you plan for safety?
When do you use risk assessment?
The benefits of early planning for safety and “safety by design”
Future-proofing your decisions
PART 4 - Who should take decisions?

Competencies
Skills
Knowledge
Experience
Expertise
Authority

Consultation
Collaboration
Cooperation

Rational, equitable, defensible decisions
PART 5 - How should decisions be taken?

Getting the question right

Efficient

Effective

Pragmatic

Proportionate

ensuring safety “so far as is reasonably practicable” (SFAIRP)

legal duty to implement measures unless you can demonstrate that the money, time and trouble to implement them are grossly disproportionate to the safety benefits

Risk-based decisions
Taking Safe Decisions 2019 in brief

A framework to guide decision making
How to make rational, equitable, defensible decisions
Aspects of good practice in decision making
How to fulfil your legal duties for ensuring safety


Taking the right decisions, in the right way, at the right time

IMPACT OF DESIGN CHANGES

<table>
<thead>
<tr>
<th>TIME / PROJECT MATURITY</th>
<th>DESIGN PHASE</th>
<th>DEFINITION PHASE</th>
<th>IMPLEMENTATION PHASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>High level of flexibility to integrate optimal safety measures into the design</td>
<td>Design and concept well defined: integration of safety measures becomes increasingly expensive and restricted</td>
<td>If addition of new safety measures is still possible at late stage in project, likely to result in substantial extra cost and delays to the project</td>
</tr>
</tbody>
</table>
The ingredients of good safety management

**Legal Framework for effective Safety Management**
- Health and Safety at Work etc Act 1974
- Management of Health and Safety at Work Regulations 1999
- ROGS - Railways and Other Guided Transport Systems (Safety) Regulations 2006
- CSM for Monitoring
- CSM for Risk Assessment
- CSM for Safety Management Systems

**Industry good practice for effective Safety Management**
- RM3 - Risk Management Maturity Model
- Taking Safe Decisions
- Leading Health and Safety on Britain's railway
- Various RSSB and ORR Guidance
Where to go for more help on *Taking Safe Decisions*

To download the main Taking Safe Decisions document and supporting material visit [www.rssb.co.uk](http://www.rssb.co.uk)

For more help and for feedback, please contact risk@rssb.co.uk (or ben.gilmartin@rssb.co.uk)
1. In terms of making “rational, equitable and defensible” decisions, what do you think your organisation does well or might do better?

2. What parts of the Taking Safe Decisions and RM3 principles and framework are most relevant to your organisation's activities?

3. Who in your organisation needs to be aware of, know, understand, or be an expert in using Taking Safe Decisions?

4. What should you or your organisation do next?
The next presentation is from ORR
Please wait while we change presenters
ORR protects the interests of rail and road users, improving the safety, value and performance of railways and roads today and in the future.

RM³ in ORR

Tom Wake, Head of NR Route Teams

RM³ workshop
December 2019
RM³ – the ORR experience

- How do we use RM³?
- What are the challenges?
The role of RM$^3$ in regulation

- **RM$^3$ is not an audit tool, but a model to structure discussions about evidence and where to go next, either internally in organisations or between inspectors and the organisations we regulate.**
  - We don’t do ‘RM$^3$ inspections’
  - We systematically collect evidence to inform our view of management maturity
  - We use the RM$^3$ model to structure our thinking and conclusions
  - Our conclusions aim to suggest improvement priorities to achieve greater management maturity
Information sources

- National projects looking at a specific area of risk management across the organisation
- Local inspections of route-specific risk control
- Investigations & complaints
- Local, regional and national liaison

Table of RM3 criteria and assessment levels

<table>
<thead>
<tr>
<th>RM3 criteria</th>
<th>Summary of Evidence</th>
<th>Section Numbers</th>
<th>Assessed Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership - SP1</td>
<td>This reporting period inspectors were pleased to note a number of important safety initiatives were in the process of being developed. Senior managers have taken ownership for their delivery. These include the WMEP, WMCA and the implementation of a new inspection regime for Longitudinal Timbers. Managers appear to have successfully communicated the importance of these initiatives to staff. These initiatives and their success so far indicates that managers at a number of levels within the Route are open to ideas for improvement. Although this work has been encouraged by inspectors, the positive work this year indicates a high '3'.</td>
<td>4.8, 4.9, 10.1, 12.1</td>
<td>3</td>
</tr>
<tr>
<td>Safety Policy - SP2</td>
<td>Criterion was not assessed.</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Ways of collecting RM³ information

■ Primarily from inspection findings
  – From the outset, inspection plans list the RM³ elements that need to be reported on
  – Inspectors are expected to give their qualitative view of strengths and weaknesses and an assessed level.

■ Investigation & liaison work findings
  – These are the conclusions from our non-inspection work, pulled together by the route team manager usually in discussion with their team.
Aggregating findings

National RM³ report

RM³ moderation panel

The national context

National topic reports

Route reports

Inspection, investigation and liaison findings
Route comparisons:

- PI1 risk assessment & management
- RCS2 Asset management
- Proactive monitoring arrangements
- Allocation of responsibilities
- Record-keeping
RM³ moderation panel

- Applies a sense check to national and route assessments
  - Consistency
  - Quantity
  - Quality
  - Currency

- Applies a broad overview to findings
  - Identify and, if necessary, moderate assessed levels

- Produces a national RM³ report
The national report

SP2 Health and Safety Policy

We obtained limited evidence on this topic, insufficient to justify a change in the assessed level from 2017-18. Our overall experience is that where centrally-led programmes do well it is because of clear policies. This has implications for the devolved world planned for CP6. Regions will need to play their part in developing clear policies to achieve sustained and improved risk control.

Assessed Level: Standardised

CENTRAL LIAISON
At our regular meetings with STE we monitor and discuss the principal elements of Network Rail’s Health and Safety Strategy. We have found evidence of strong direction and assurance in some areas, such as the Home Safe Plan. In others, such as the Near Miss Reduction Plan, we have tried to exert influence to make them better targeted.

3

WESSEX
The Home Safe Plan provides the overarching structured approach for the Route to manage health and safety risks. There is clear evidence of awareness of the ‘home safe every day’ message throughout the areas of the route inspected. It was observed to have an influence on how work activities are planned and implemented (e.g. the flow chart instructions produced for the management of risks to the track during hot weather provided clarity for maintenance staff on how to reduce the likelihood of track buckle, and the potential of a train derailment).

Conversely, there was narrative evidence from staff that other pressures on the Route (e.g. managing track quality to enhance train performance) can sometimes place pressures on prioritising the importance of this safety policy.

3

Network Rail gets the evidence

We don’t emphasise the assessed level

We provide a commentary

– These are designed to set the evidence within a national context and generate discussion about improvement

– This is the real value of RM$^3$
The challenges

- **Consistency**
  - Dealing with outliers: over or under assessment
  - Consistency between years
  - Range of assessment – a proxy measure for degree of confidence?

- **Quantity**
  - Too much or too little evidence

- **Quality**
  - Evidence that fails to address the criteria, or does so in vague terms

- **Currency**
  - Some evidence might be 12 months old. How to include when things have changed
How we manage the challenges

- RM³ briefings and workshops
- Moderation panel
- Feedback to inspectors and team managers

Feedback

Planning

Moderation

Inspection

Assessment
Thank you for your attention

Any questions?
Lunch
RM³ Practical Implementation Exercise
RM³ Practical Application Training Exercise

- To help develop and improve your understanding of RM³, we would like you to step into the shoes of an inspector for an afternoon.

- Typical evidence of what ORR inspectors find on visits, has been represented into four individually numbered evidence sources.

- We want you to:
What we want you to do:

Identify and assess RM³ elements and their level of maturity:

■ Each table will be a group and name themselves.
■ Go through each evidence source individually.
■ You have 20 minutes to read and identify relevant RM³ elements (use the evidence factors and culture call outs).
■ Assess the RM³ maturity level of elements you find, but also consider Consistency, Quality, Quantity Currency (CQQC).
■ Record the elements and their maturity level in your groups.
■ Review the findings before moving onto next evidence source.
What did you find and decide?

- We will discuss each evidence source individually to share learning and understanding.

- Provide delegates the opportunity to share their experience of RM³ and their thoughts leading to the decisions they made.
RM³ Workshop Wash Up and Group Discussion

Opportunity for the audience to ask questions on RM³ to ORR inspectors in the room:

- Training in RM³;
- Issues with using RM³:2019;
- Suggestions for improvement of RM³:2019;
- What more can ORR do to help?
Closing Comments

Thank you to:

- Presenters;
- RSSB for providing their venue;
- ORR Inspectors and;
- To all rail industry delegates for attending and participating.