

RISSB

RAIL INDUSTRY SAFETY AND STANDARDS BOARD

Rail Industry Collaboration in Fatigue Risk Management



Presentation Topics

Importance of Fatigue Risk Management

Fatigue Risk Management Collaboration Group

Collaboration and Sharing of Learnings

Common Challenges across industry

Organisational approaches to FRM

Why is understanding Fatigue Risk so Important?

Slower cognitive processing

Increasing sleepiness

Memory Deficits

Decreases in attention, vigilance and reaction times,

Negative effects on decision-making, alertness, vigour and mood

Increasing errors and difficulties in communicating

Unplanned sleep episodes or microsleeps

Distractions

Loss of Situational Awareness

The Fatigue Risk Management Collaboration Group



Membership for those involved in an RTOs FRMS

Membership of the FRMCG is extended to person(s) who have expertise in fatigue risk management and/or involvement in an operators Fatigue Risk Management System (FRMS).



Collaborate and Support

Collaborate, support, provide guidance and enable open discussions within the group on fatigue risk management.



Discuss challenges

Challenges operators face when in developing and implementing fatigue risk management programs in accordance with legislative requirements, and to improve safety and wellbeing in rail.



Learning and Sharing

Forum for those responsible or have direct input for developing, implementing or managing their organisations fatigue risk management programs to share experiences, learn from each other and discuss research and developments in fatigue science.



Partnered with RISSB in 2022

Strategic collaboration and partnership between the group, RISSB and RTO's.

Collaboration and Sharing of Learnings



Members provide insights into fatigue risk management process and design approaches aimed at improving their organisations FRMS.



Organisational psychology approaches to achieve FRMS organisational change – Human centered design.



Members share solutions and approaches to common challenges to enabling learning across industry.



Discussion on research and developments in fatigue science and shift work across other safety critical or high reliability industries.



Different approaches that organisations are taking to consider how this may be applicable to them



Ongoing agenda item to discuss and review fatigue technology, focused on scientific validation.



Improving HFI through engaging Human Factors specialists to support FRMS design/improvement.



Invite extended external speakers, providing development opportunities for members.

Common Challenges across Industry



Workforce

- Increasing fatigue exposure of workers due to changes in operational demands and a shortage of qualified workers across roles and locations
- Difficulties of operationally qualified workers accessing leave to rest and recover
- Time taken to recruit qualified operational workers
- Emerging impacts and understanding of psychosocial hazards in the workplace and correlation to fatigue and rostering
- Cultural attitudes towards fatigue – fear of reprisal for speaking up.



FRM Tools

- Ineffective monitoring (rostering) systems that don't provide adequate insight into organisational fatigue risk factors
- Misunderstanding of bio-mathematical tools and over-reliance that inform operational FRM decisions
- Difficulty in shifting FRM design from prescriptive based to risk based
- Variance between work groups and shifting from a one size fits all approach
- Lack of fatigue risk data to assist monitor and evaluation of FRMP
- Generally good at the planning stage of fatigue management but challenges in the complexity of managing a dynamic operational environment



HF and Fatigue Specialists

- Due to complexity and scale of FRMP gaps in specialists to undertake a multi year project
- Shortage of HF specialist across industry and impacts of where HFI is not considered adequately within an organisation
- Limited SMEs available to support systems/equipment design – impacting continuous improvement of approaches to fatigue and maintain contemporary knowledge of developments in fatigue science
- Lack of fatigue risk analysis being integrated into system/equipment and organisational fatigue management system design
- Difficulty in establishing quantifiable data on fatigue risk exposure through gaps in availability of HF specialist analysis and organisational process.

Organisational Approaches to FRM

Successful approaches involve refocus, education and awareness of fatigue risk to minimise resistance to change and gain support across all levels of the organisation

Improving existing workforce management systems with enhanced functionality to align with organisations FRMP

Developing more robust and specific risk assessment process for fatigue – focused on task and work specific risk

Moving away from a one size fits all approach across the organisation to managing fatigue

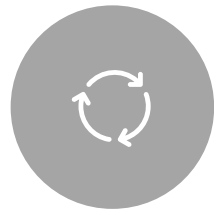
Taking a human centered design approach to designing the organisations FRMP enabling the practical application of integrating a risk-based approach to fatigue

Project plans include significant mapping of change impacts with integration of fatigue risk and operational processes (people, process, systems)

Presentation Summary



FATIGUE IS A COMPLEX TOPIC AND REQUIRES SPECIALIST KNOWLEDGE



REQUIRES HFI ACROSS ALL PHASES OF CHANGE, DESIGN AND IMPLEMENTATION



REPRESENTS SIGNIFICANT SHIFT IN THINKING CULTURALLY ABOUT FATIGUE AWAY FROM PRESCRIPTIVE APPROACHES TO RISK-BASED APPROACHES



FRMP MUST CONSIDER AND ACCOMMODATE WORK GROUPS SPECIFIC AND UNIQUE FATIGUE RISKS



FRMCG SUPPORTING INDUSTRY WIDE ENHANCEMENTS IN SAFETY THROUGH SUCCESSFUL SUBMISSION FOR RISSB GUIDELINE



PROVIDING A FORUM FOR FATIGUE SPECIALISTS IN RAIL TO LEVERAGE OFF COLLABORATION THAT CAN SUPPORT FATIGUE RISK MANAGEMENT DESIGN AND INITIATIVES

Further Information on Fatigue Risk Management Collaboration

- RISSB FRMCG Website:
<https://www.rissb.com.au/fatigue-risk-management-collaboration-group/>
- FRMCG Chairperson contact:
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Webinars

2023 RISSB's Rail Safety Awards

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SPAD/LRTAE Working Group

Safety Managers Group

Human Factors Managers Group

Fatigue Risk Management Collaboration Group >

Fatigue Risk Management Collaboration Group

The purpose of the Fatigue Risk Management Collaboration Group (FRMCG) is to discuss the challenges that Australian rail transport operators (RTOs) face when it comes to developing and implementing fatigue risk management programs in accordance with legislative requirements, and to improve safety and wellbeing in rail.

This group provides a forum for those responsible or have direct input for developing, implementing or managing their RTOs fatigue risk management programs to share experiences so that members can all learn from each other and combine experiences.

In May 2022, RISSB took over ownership of this group and will support FRMCG members by providing strategic coordination, and facilitating conversations around good practice fatigue risk management.

Thank you

