RISSB

RAIL INDUSTRY SAFETY AND STANDARDS BOARD

System Safety Guideline

This Rail Industry Safety and Standards Board (RISSB) product has been developed using input from rail experts from across the Rail Industry. RISSB wishes to acknowledge the positive contribution of all subject matter experts and DG representatives who participated in the development of this product.

The RISSB Development Group for this Guideline consisted of representatives from the following organisations:

Abbot Risk Consulting	Department of Transport Victoria	Indec Consulting
Metro Trains	Mott MacDonald	Network Rail Consulting
Public Transport Authority WA	Queensland Rail	Rail Assurance Consulting
SMEC	The Calibre Group	Transport for NSW

Development of this Guideline was undertaken in accordance with RISSB's accredited processes. It was approved by the Development Group, endorsed by the Standing Committee, and approved for publication by the RISSB Board.

I commend this Standard to the Australasian rail industry as it represents industry good practice and has been developed through a rigorous process.

Deb Spring
Exec. Chair / CEO
Rail Industry Safety and Standards Board

Notice to users

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RISSB welcomes suggestions for improvements and asks readers to notify us immediately of any apparent inaccuracies or ambiguities, please contact us via email at info@rissb.com.au or write to Rail Industry Safety and Standards Board, PO Box 518, Spring Hill, QLD 4004, Australia.

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Document control

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Approval

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1 Introduction

1.1 General

System safety provides the necessary governance, processes and objective evidence by which parties satisfy themselves that a given product, service, system or organisational change can be safely integrated, operated and maintained into the transport network, so far as is reasonably practicable (SFAIRP).

1.2 Aim and purpose

This guideline aims to create a harmonised, uniform and consistent approach for managing the safety of existing and future Australian railway network assets and systems.

The purpose of this guideline is to assist rail organisations in the establishment and running of system safety activities within their business. The system safety activities will be scalable and tailorable to meet the complexities of a proposed change of product, service, system, or organisational change.

1.3 Scope

This document applies to organisational, operational and asset change and provides guidance on:

- why do system safety?
- key system safety considerations;
- organisational matters relevant to system safety; and
- the system safety process.

This guideline outlines high-level, structured system safety processes that:

- can be applied throughout the change;
- can be tailored to fit the size and complexity of the change;
- ensure regulatory and legal requirements are met; and
- ensure existing standards are applied.

The guideline provides a system safety lifecycle model to safely design, deliver, construct, commission, operate, maintain, modify, and dispose of railway assets, systems, and operations. The guideline applies to new and modified railway infrastructure and equipment, including rolling stock, electrical, telecom, signalling and civil infrastructure. It applies to significant changes to operation and maintenance of existing systems. While specifically concerned with safety, it is also relevant to assuring prevention of environmental and asset damage, cybersecurity, and reliability, availability, and maintainability (RAM).

The guideline does not include the daily management of workplace safety, which is covered by WHS standards, including during construction.

1.4 Who this guideline applies to

This guideline is intended to be used by those managing changes in the rail industry. This can include:

- executives and senior managers - to assist in understanding the requirements of system safety management and the duty of care that applies to an organisation; and
- designers, engineers, system safety managers, project managers, contractors and suppliers and procurement authorities - who need a detailed understanding of system safety principles in the Australian rail context.