AS 7770:2018

Australian STANDARD®

Rail Cyber Security

RISSB
RAIL INDUSTRY SAFETY AND STANDARDS BOARD

Safety Standard

This Australian Standard® AS 7770 Rail Cyber Security was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organisations:

- Aurizon
- Queensland Rail
- TasRail
- Sydney Metro
- Metro Trains Melbourne
- Roy Hill
- Vic Track
- ASA
- Sydney Trains
- ARTC
- KiwiRail

This Standard was approved by the Development Group and the Safety Integration Standing Committee in June, 2018. On July 10, 2018 the RISSB Board approved this Standard for release.

This Standard was issued for public consultation and was independently validated before being approved.

Development of this Standard was undertaken in accordance with RISSB's accredited process. As part of the approval process, the Standing Committee verified that proper process was followed in developing this Standard.

RISSB wishes to acknowledge the positive contribution of subject matter experts in the development of this Standard. Their efforts ranged from membership of the Development Group through to individuals providing comment on a draft of this Standard during the open review.

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

Paul Daly
Chief Executive Officer
Rail Industry Safety and Standards Board

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Approval

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Rail Industry Safety and Standards Board	10/07/2018

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1 Introduction

1.1 Purpose

This Standard specifies the requirements for rail transport operators (RTOs) for managing cyber security risk on the Australian railway network.

It has been developed to assist RTOs to establish and maintain a good practice approach to industrial automation and control systems (IACS) and information technology (IT) that is used within their organisations to operate rail systems and protect them from deliberate cyber-attack.

1.2 Scope

This Standard includes the requirements for implementing an effective cyber security management system for rail systems.

In this Standard, rail cyber security is the preservation of the reliability, availability, maintainability and safety (RAMS) of rail control systems and the confidentiality, integrity and availability of data in ancillary systems and the privacy of customer information.

The focus is on cyber threats that can lead to a reduction of reliability, availability, maintainability and safety of railway operations.

1.3 Intended audience

This Standard applies primarily to RTOs and to suppliers, subcontractors, and maintenance contractors, who will need to be aware of changing expectations in the industry that they are supporting.

This Standard has been written for implementation by digital systems engineers or security architects who have a detailed knowledge of rail control systems, critical systems design and cyber security, and for the information of management and all staff who have responsibility for cyber security.

This Standard is not intended to cover urban on-street tramway, light rail networks, or heritage railways operating on a private reservation, but may be applied to such systems as deemed appropriate by the relevant organisation.

1.4 Compliance

There are two types of control contained within Australian Standards developed by RISSB:

(a) Requirements.

(b) Recommendations.

Requirements – it is mandatory to follow all requirements to claim full compliance with the Standard.

Requirements are identified within the text by the term ‘shall’.

Recommendations – do not mention or exclude other possibilities but do offer the one that is preferred.

Recommendations are identified within the text by the term ‘should’.

Recommendations recognise that there could be limitations to the universal application of the control, i.e. the identified control cannot be able to be applied or other controls could be more appropriate or better.