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AUSTRALIAN RAIL INDUSTRY
STANDARDS ORGANISATION

AS 7513

Rolling Stock Interior Environment

STANDARDS



Advancing safety and productivity

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Development of this Standard was prepared by an Australian Rail Industry Standards Organisation (ARISO) Development Group consisting of representatives from the following organisations:

Fortescue, PTA, Queensland Rail, Transport for NSW, and Transport Victoria.

The Rolling Stock Standing Committee verified that ARISO's accredited process was followed in developing the product, before the ARISO Board approved the document for publication.

ARISO 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 comments on a draft of the 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.



Alan Fedda
Chief Executive Officer
Australian Rail Industry Standards Organisation

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Approval

Name	Date
Australian Rail Industry Standards Organisation Board	19 February 2026

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Preface

This Standard was prepared by the Rolling Stock Interior Environment Development Group, overseen by the ARISO Rolling Stock Standing Committee.

Since the first publishing of this Standard, additional products have been developed and published that supersede the information in previous versions of the AS 7513 series.

The major changes in this edition are as follows:

- (a) Combination of AS 7513.1, AS 7513.3 and AS 7513.4 into a single Standard;
- (b) The requirements from earlier published versions of the AS 7513 series pertaining to comfort parameters and non-ionizing radiation can now be found in AS 7482 and AS 7722; and
- (c) Previous versions of the AS 7513 series also sourced requirements from documents no longer current though still widely used in the industry. This information is preserved in the informative appendixes.

Objective

The objective of this Standard is to describe the requirements for the interior environmental specification and performance of rolling stock. The main purpose of the requirements is to provide a safe and comfortable environment on rolling stock for humans.

This ARISO Standard attempts to define good to best environmental practice from existing legislation and other sources to incorporate as mandatory and recommended requirements for Australian rail networks.

Compliance

There are four types of provisions contained within Australian Standards developed by ARISO:

- (a) Requirements.
- (b) Recommendations.
- (c) Permissions.
- (d) Constraints.

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 recognize that there could be limitations to the universal application of the control, i.e. the identified control is not able to be applied, or other controls are more appropriate or better.

For compliance purposes, where a recommended control is not applied as written in the Standard it could be incumbent on the adopter of the Standard to demonstrate their actual method of controlling the risk as part of their WHS or Rail Safety National Law obligations. Similarly, it could also be incumbent on an adopter of the Standard to demonstrate their method of controlling the risk to contracting entities or interfacing organisations where the risk may be shared.

Permissions – conveys consent by providing an allowable option. Permissions are identified within the text by the term 'may'.

Constraints – provided by an external source such as legislation. Constraints are identified within the text by the term 'must'.

ARISO Standards address known hazards within the railway industry. Hazards, and clauses within this Standard that address those hazards, are listed in Appendix A.

Appendices in ARISO Standards may be designated either “normative” or “informative”. A “normative” appendix is an integral part of a Standard and compliance with it is a requirement, whereas an “informative” appendix is only for information and guidance.

Commentary

Commentary C Preface

This Standard includes a commentary on some of the clauses. The commentary directly follows the relevant clause, is designated by ‘C’ preceding the clause number and is printed in italics in a box. The commentary is for information and guidance and does not form part of the Standard.

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AS 7513 PREVIEW ONLY

Section 1 Scope and general

1.1 Scope

This document describes requirements for the interior environment specification and performance of locomotive, passenger rolling stock, crew cars and infrastructure maintenance rolling stock.

Within this document, where reference is made to passenger rolling stock, it is to be read that crew cars requirements are in line with passenger requirements.

This document applies to new and modified rolling stock.

Existing rolling stock could be assessed and modified to meet the requirements of this document where practical to do so.

The main purpose of the requirements is to provide a safe and comfortable environment on rolling stock for passengers and rail traffic crew and any other relevant personnel onboard.

This document defines good to best environmental practice from existing legislation and other sources to incorporate as mandatory and recommended requirements for Australian rail networks.

The document covers the design, construction and maintenance of rolling stock.

Operation of rolling stock regarding network safe working rules, procedures and route standards is not covered.

This document is not specifically intended to cover freight wagons, light rail, heritage rolling stock or cane railways, but items from this document could be applied to such systems as deemed appropriate by the relevant rail transport operator (RTO).

Commentary C1.1

This document provides the minimum requirements for rolling stock and Rolling stock operators (RSOs) are encouraged to assess the requirements for the comfort of rail safety workers (RSWs) when crew cars are a part of their operating model.

1.2 Normative references

The following documents are referred to in the text in such a way that *some* or all of their content constitutes requirements of this document:

- AS 2670.1:2001, *Evaluation of human exposure to whole-body vibration, Part 1: General requirements*
- AS 7482:2022, *Railway rolling stock-Heating ventilation and air conditioning (HVAC)*
- AS 7722:2026, *EMC Management*
- AS/NZS 1269.1:2005, *Occupational noise management, Part 1: Measurement and assessment of noise immission and exposure*
- IEC 61672:2013-1, *Electroacoustics - Sound level meters - Part 1: Specifications*
- ISO 3381:2021, *Railway Applications - Acoustics - Measurement of Noise Inside Railbound Vehicles*
- ISO 5349-1:2013, *Mechanical Vibration - Measurement and Evaluation of Human Exposure to Hand-transmitted Vibration - Part 1: General Requirements*
- EN 14363:2016+A2:2022, *Railway Applications - Testing and Simulation for the acceptance of running characteristics of railway vehicles - Running Behaviour and stationary tests*