Railway Infrastructure – Sighting

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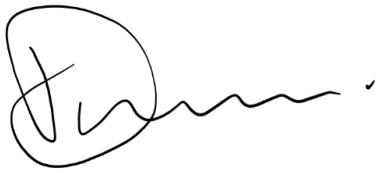
Development of this Standard was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organisations:

PTA WA, RTBU, NSW TrainLink, Arcadis. V/Line, TfNSW, ARTC, Acmena, Aurizon, Queensland Rail, Jacobs.

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

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 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.



Damien White
Chief Executive Officer
Rail Industry Safety and Standards Board

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Preface

This standard was prepared by the Railway Infrastructure – Sighting Development Group, overseen by the RISSB Infrastructure Standing Committee.

Objective

Signs, signals, and indicators are used in the railway to present information to train crew, maintenance workers and other authorized persons working in the rail corridor. In order for this information to be comprehended by the user, the correct sighting of the stimulus is required.

The objective of this Standard is to provide a framework to assess optimal sighting arrangements in order to minimize risks as a consequence of poor sighting on the railway network.

The documentation can be used to facilitate the optimisation of sighting and detection-response which are considered important safety factors in the mitigation of railway safety risks associated with:

(a) the occurrence of an exceedance of authority from incorrectly placed signs or signals;

(b) the occurrence of reading the incorrect sign or signal, for example read-through and read-across errors; and

(c) the impacts of other rail corridor infrastructure obstructing signs or signals.

Whilst not the primary objective, this Standard can also be used to provide information regarding the sighting of:

(d) railway and contract personnel working in the rail corridor;

(e) authorized visitors to the corridor; and

(f) machinery and plant being used in the corridor.

If applied as intended, the framework provided in this Standard will enable the rail infrastructure manager (RIM) to overcome or minimize the safety risks associated with poor sighting arrangements; thereby increasing safety of operations and people.

Compliance

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

(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.

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'.

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.

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

Appendices in RISSB 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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1.1 Scope

This Standard aims to provide a framework for the development and implementation of optimal sighting arrangements for visual stimuli in the rail corridor where it is critical that a person(s) perceives, interprets and acts upon a stimulus in a safe and controlled manner.

A stimulus can be a:

(a) sign; temporary and permanent

(b) signal; and/or

(c) indicator, e.g., guard's indicator or station indicator.

For the purpose of this Standard, markings such as stop lines, platform markers, etc., are included as signs. Indicators such as guard's indicators are included as signals.

Where appropriate, this Standard is intended to be used in conjunction with:

(d) AS 7632, *Railway Infrastructure – Signage*; and

(e) AS 7721, *Railway Signals, Indicators and Signage*.

This Standard describes a number of environmental, physical and human factors considerations which will assist the RIM in the understanding of sighting processing, constraints and requirements.

This Standard is not specifically intended to cover heritage railways operating on private reservation, but items from this Standard can be applied to such systems as deemed appropriate by the relevant Rail Infrastructure Manager (RIM).

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 7630, *Railway Infrastructure - Track Classification*
- AS 7632, *Railway infrastructure - Signage*
- AS 7721, *Railway Signals, Indicators and Signage*
- *National Standard for Health Assessment of Rail Safety Workers 2017*

NOTE:

Documents for informative purposes are listed in a Bibliography at the back of the Standard.

1.3 Defined terms and abbreviations

For the purposes of this document, the following terms and definitions apply:

1.3.1
dark adaptation
adjustment of the eye to low light intensities, involving reflex dilation of the pupil and activation of the rod cells in preference to the cone cells