

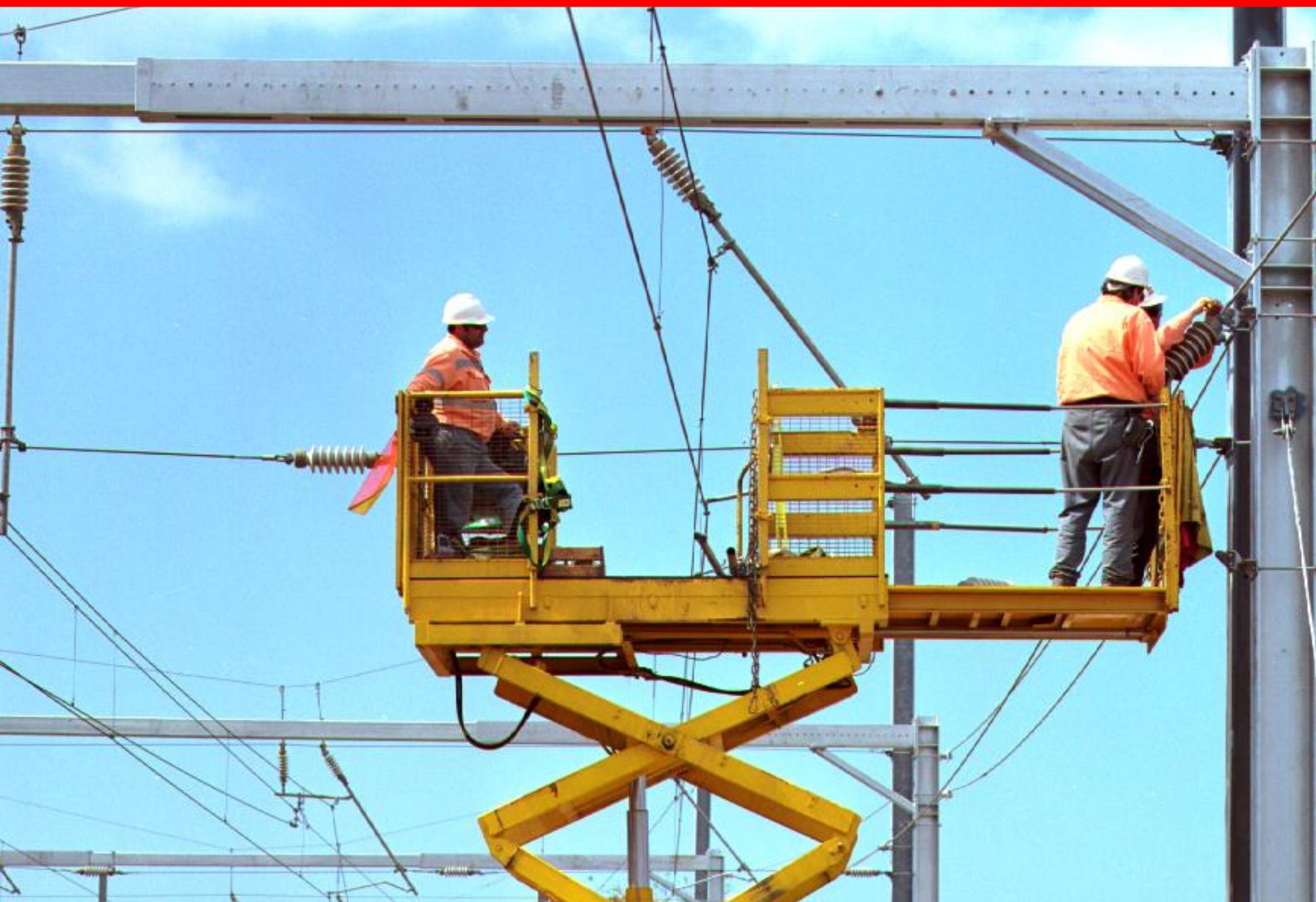
AS 7650: 2017



Drawings and Operating Symbols for OHLE Rail Systems



Infrastructure Standard



This Australian Standard® AS 7650 Drawings and Operating Symbols for OHLE Rail Systems was prepared by a RISSB Development Group consisting of representatives from the following organisations:

Queensland Rail
Brookfield Rail

Aurizon
Pacific National

Australian Rail Track Corporation

The Standard was approved by the Development Group and the Infrastructure Standing Committee in November, 2016. On January 30, 2017 the RISSB Board approved the Standard for release.

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

Development of the standard was undertaken in accordance with RISSB's accredited process, which includes an independent validation. As part of the approval process, the Standing Committee verified that proper process was followed in developing the 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 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.



Paul Daly
Chief Executive Officer
Rail Industry Safety and Standards Board

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 Drawings and Operating Symbols
 for OHLE Rail Systems
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1 Introduction

1.1 Purpose

This document is to achieve consistency in the drafting of symbols and drawing sets to be used for electrical layouts, including drawings for isolation, earthing and bonding and High Voltage.

While this standard was developed for AS 7650 compliance, the process can be used for compliance with any standards.

The onset of computer aided design (CAD), the increase in application of geospatial and building information modelling (BIM) and requirement for data interoperability has increased the need for consistent standard and efficient ways of drawing and representation of symbols across industry in every discipline to ensure quality drawings that meet current and future industry needs.

Standards in the presentation of electrical drawing formats and operational symbols are important to:

- (a) provide a structured approach in the production of drawings;
- (b) create consistency and understanding across the industry;
- (c) create a point of reference;
- (d) create a high level of integrity;
- (e) improve design and drafting efficiency;
- (f) minimise the problems associated with the transfer/converting of data.

1.2 Scope

This Standard aims to provide guidelines towards the definition of a common format to express content, applicability and purpose of site-specific layout drawings and equipment level symbols for:

- (a) isolation;
- (b) earthing and bonding;
- (c) High Voltage.

Provide a statement of industry best practice for the graphical language in electrical railway drawing layouts and schematics.

Recommendation of preferred industry operating symbols based upon consideration of identified risks, current and future technology operability requirements and visual best practice from industry

1.3 Compliance

There are two types of control contained within RISSB Standards:

- (a) mandatory (MAN) requirements, and
- (b) recommended (REC) requirements.