



Rethinking safety through  
**INCLUSION**  
+  
**WELLBEING**

# RAIL

## ELEMENT 17

7/01/2026

## GENERAL ENGINEERING AND OPERATIONAL SYSTEMS

### PURPOSE AND SCOPE

The purpose of this Procedure is to assist personnel to know and understand the requirements to be applied to address general engineering and operational systems safety requirements.

This Procedure applies to all railway operations undertaken by Laing O'Rourke and to the development and implementation of operational systems associated with the railway operations.

### 1.0 PROCEDURES

Laing O'Rourke manages assets under its RTO accreditation in accordance with the principles outlined in ISO/IEC 15288 – Systems Life Cycle Process as defined in the ONRSR Guideline for Asset Management. Standards and procedures in the Laing O'Rourke Rail Safety Management Systems that correlate with the requirements planning, commissioning and operation of assets are outlined in the diagram 1 below

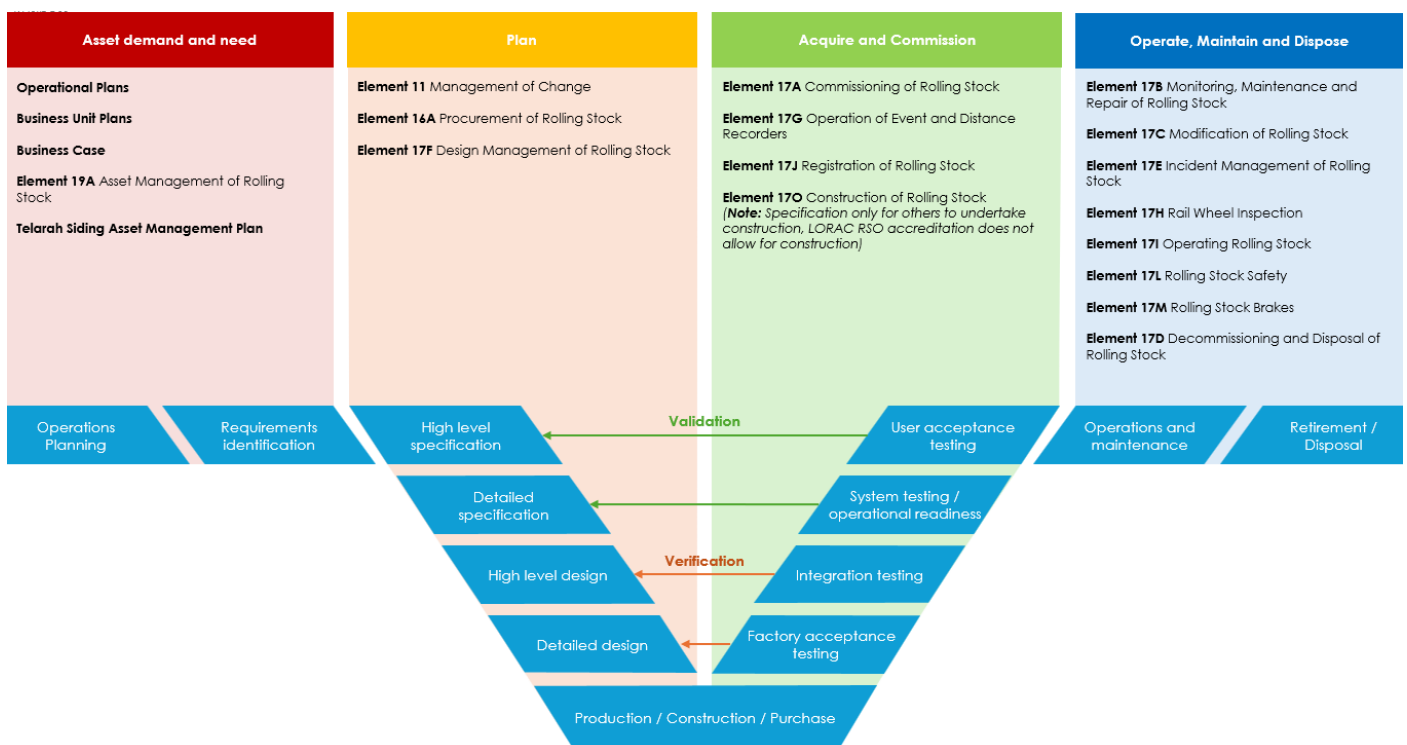


**Diagram 1** - Laing O'Rourke Rail Safety Management Systems correlation.

Verification is the testing and evaluation of an item of equipment or system to assure compliance with its specification and other requirements.

Validation is confirmation that the particular requirements for a specific intended use are fulfilled.

The (Australian) Rail Industry Safety Standards Board (RISSB) is the recognised body responsible for the development and management of railway documents which include Standards, Codes of Practice, Guidelines, and other supporting documents all of which are separately listed under the following headings within the RISSB website.



The Rail Safety and Compliance Manager can provide details on request.

The Procedures will directly relate to the standards linked to the respective discipline.

Reference to the RISSB Rolling Stock Standards is contained in the Laing O'Rourke procedures for the management of their rolling stock.

## 2.0 ENGINEERING AND OPERATIONS AUTHORITY

An Engineering and Operations Authority will be implemented for each Workplace / project that has a Railway Engineering or Railway Operations component that Laing O'Rourke is required to manage as a Railway Infrastructure Manager. This is outside of the scope for this Procedure as this Procedure relates solely to the rolling stock criteria for which Laing O'Rourke holds accreditation as a Rolling Stock Operator.

Laing O'Rourke is a Rail Infrastructure Manager for a single siding at the Telarah facility in NSW. Details about the management of this facility and engineering authority is covered under the Telarah Facility Coordination Plan (a subsection of the LOR Internal Rail Interface Operating Requirements).

## 3.0 DESIGN MANAGEMENT AND CERTIFICATION

While design management is not a function covered by Laing O'Rourke's accreditation, the process described in **Element 17F Design Management and Certification of Rolling Stock** will be applied where appropriate.

## 4.0 COMPETENCY MANAGEMENT

The competency management process applied by Laing O'Rourke will be in accordance with the criteria set out in **Element 22 Rail Safety Worker Competence**.

## 5.0 STANDARDS

Rolling Stock Technical Standards will be those administered by the Rail Industry Safety and Standards Board (RISSB). To gain access to these Standards arrangements will be made to obtain a RISSB log-in. To gain access to the Site register via the RISSB on-line application process using the link below.

<https://www.rissb.com.au/wp-login.php?action=register>

Before applying any Standard, reference must be made to the complete document in its current form. Rolling stock interface standards will be those defined where relevant in the network owner's Rolling Stock Standards manual.

The LOR Rail Operations in association with Select and the Rail Safety and Compliance Manager, will determine what standards are applicable for the respective items of rolling stock and ensure authorisation to operate the items of rolling stock on the network is obtained prior to the proposed rolling stock operations.

## 6.0 CONFIGURATION MANAGEMENT

The configuration management provided will include management of the set of designs and standards applicable to the item of Rolling Stock. The system will provide access to these documents and enable a configuration change management process that includes:

- Acknowledgement of the current configuration as correct
- Proposal for change acceptance
- Change management processes of risk management and consultation
- In principal agreement with design approved
- Accept change, with successful commissioning, and update of records (refer to the iGMS Processes for Testing and Inspection).



## 7.0 ASSURANCE

Within the design process, assurance will be provided through verification at each stage and validation through testing and commissioning.

Assurance of the General Engineering and Operations Systems Safety Requirement (Element 17) will be through the Laing O'Rourke audits and compliance inspections, which will include review of the design and standards assurance processes noted above.

## 8.0 REGULATIONS, GUIDES AND STANDARDS

- Rail Safety National Law
- ONRSR Guideline Preparation of a Safety Management System
- The RISSB Standards Relating to rolling stock are defined under AS 7500 series
- AS-7472 2018 Railway operations management of change
- Element 11 Management of Change

## 9.0 FORMS, TEMPLATES AND RECORDS

- Design records
- Commissioning records (e.g., Inspection test Plan's)
- Monitoring, Maintenance and Repair records
- MoC Control Form
- MoC Implementation Action Plan
- Modification of Rolling Stock
- Decommissioning and Disposal of Rolling Stock