

## ATTACHMENT 3: STANDARDS

Standards applying to the design, construction and operation of the Maintenance Facility include but not necessarily limited to those listed below:

	RailCorp System Safety Manual
	WorkCover's An Occupational Health and Safety Model for Self Insurers
AS 4292	Railway Safety Management
AS 4801	Occupational Health and Safety Management Systems
	Building Code of Australia
AS 3000	Electrical Installations - Buildings, Structures and premises (known as the AS/NZ Wiring Rules)
AS 1428.2	Design for access and mobility – Enhanced and additional requirements – Buildings and facilities
AS/NZS 1680.2.4:1997/Amdt:1998	Interior Lighting – Industrial Tasks and Processes
AS 1680.2.2 - 1994	Interior Lighting – Office and Screen-based Tasks
AS 4282	Control of Obtrusive Effects of Outdoor Lighting
AS 1158.1	Road Lighting – Vehicular Traffic (Category V) Lighting – Performance and Installation Design Requirements
AS 2118.1 - 1999	Automatic Fire Sprinkler Systems – General Requirements
AS 4100 - 1998	Steel Structures
AS/NZS 2890.1:2004	Parking facilities - Off-street Car Parking
AS/NZS 3016:2002	Electric Installations – Electric Security Fences
AS/NZS 4663:2004	Slip resistance measurement of existing pedestrian surfaces
AS/NZS 4586:2004	Slip resistance classification of new pedestrian surface materials
AS 1055.1-1997	Acoustics – Description and Measurement of Environmental Noise - General Procedures
AS 1055.2-1997	Acoustics – Description and Measurement of Environmental Noise - Application to Specific Situations
AS 1055.3-1997	Acoustics – Description and Measurement of Environmental Noise - Acquisition of Data Pertinent to Land Use

### **RailCorp Transit Space Standards**

C 2100 November 2001	Transit Space Handbook – System Overview 3.0
C 2101 November 2001	Transit Space Policy 2.0
C 2105 November 2001	Application of Kinematic Envelope 2.0
C 2106 November 2001	Infringement of Transit Space Standards 2.0
C 2107 November 2001	Base Operating Standards for Clearances 2.0
C 2108 November 2001	Clearances at Platforms 3.0
C 2111 November 2001	Track Centre Clearance Signs for Yards 3.0
ESC 510 Sept 2005	Boundary Fences v1.0

### **RailCorp Track Design**

**Standards:**

Sept 2005	Design Guidelines for the Upgrade and Construction of New and Existing Train Stabling Yards and Turnback Sidings – version 0.3
	SRA Guide to OH&S Construction in Stabling Yards and Sidings (Draft 5 Nov 2002)
TS 3101 June 2004	Standard Classification of Lines
TS 3103 March 2004	Track Standards Construction 3.1
TS 3202 Nov 2001	Basic Siding Track Design Standards
TS 3501 Nov 2001	Turnouts – Components Definitions
TS 3502 Nov 2001	Standard Turnouts
TS 3421 Nov 2001	General Standards for Formation and Earthworks 2.0
TS 3422 Nov 2001	Standard for Formation Capping Material
TS 3424 Nov 2001	Standard Procedures for Embankment Widening

**RailCorp Track Rails Standards:**

C 2104 February 2002	Structure Gauge 1994
C 2405 May 2005	Rail Defect Standards May 2004
CSI 029	Grinding of Crossings Nov 2001
AP 5373	Internal Rail Inspection March 2004

**RailCorp Track Components, Track Welded Standards:**

C 1100 Nov 2001	Earthworks Construction Procedures
C 2303 Nov 2001	Technical Specifications for Manufacture of Turnouts and Components
C 2501 Nov 2001	Welded Track – Definition of Terms
C 2508 Nov 2001	Maintenance of Welded Track (Summer Period)
C 2514 Nov 2001	Maintaining Rail Adjustment in Track Adjoining a Major Removal
C 2532 Nov 2001	Maintenance of Non Welded Track (Summer Months)
C 3109 Nov 2003	Prestressed Concrete Sleepers - Design
TS 3322 Sept 1997	Specification for the manufacture and supply of resilient rail fastening assemblies for SRA concrete sleepers
TS 3341 Nov 2001	Use of Resilient Fastenings Pandrol Type
TS 3342 May 2004	Use of Reformed Plates with Resilient Fastenings
C 3361 Nov 2001	Field Application of Swage Fasteners in Existing Trackwork

TS 3362 Nov 2001	Use of Flame Cut Rails
C 3363 Nov 2001	Manufacture and Pre-Installation Testing of Assembled Glued Insulated Joints
C 3365 Nov 2001	Specifications for the Supply of Field Assembled Mechanical Insulated Joint Components
TS 3371 Nov 2001	Standard Fishbolts, Washers and Nuts
TS 3394 Nov 2001	Use of Glued Insulated Joints
TS 3396 Nov 2001	Pre-Assembled Double Glued Insulated Joint Specification
TS 3397 Nov 2001	Use of Resilient Fastenings at Glued Insulated Joints
TS 3402 Nov 2001	Specification for Supply of Aggregate for Ballast
TS 3601 May 2004	Field Welding Standards
TS 3602 Nov 2001	Standard Procedures for Welding
TS 3603 Nov 2001	Approved Aluminothermic Welding Processes for Field Welding of Rail
TS 3604 June 2004	Rails Approved for Welding
TS 3606 Nov 2001	Rails Approved for Use as Junction Rails
TS 3640 Nov 2001	Policy Use of Welded Track
TS 3642 Nov 2001	Standard for Laying Continuous Welded Rails
TS 3645 Nov 2001	Anchoring of Track
TS 3648 Nov 2001	Maintenance of Welded Track (General)
TS 3650 Nov 2001	Adjustment & Field Welding for Cont Welded Track
TS 3654 Nov 2001	Rail Inserts and Slotted Plates – Use and Maintenance
C 5200 Nov 2001	Evaluation and Approval of Track Components

**RailCorp Structures General Standards:**

C 1001 Nov 2001	Civil Engineering - Introduction
G 8530 Nov 2001	Use of Survey Control Marks by External Bodies
G 8001 Nov 2001	Worksite Safety Boundary Markers

**RailCorp Structures Design**

**Standards:**

C 4004 Oct 2002	Design Requirements for Pier or Column Protection – v 3.0
AP 6111 Sept 2003	Derailment Protection of Existing Supporting Structures
TS 31 200 1 01 SP Jan 2002	Guard Rails – Configuration Standards
TS 30 000 3 01 SP July 2003	Structures – Design Standards

**RailCorp Overhead Wiring Standards:**

EP 08 00 00 01 SP March 2003	Overhead Wiring Standards for the Electrification of New Routes
EP 08 00 00 02 SP Oct 2001	Overhead Wiring Maintenance Standards
EP 08 00 00 03 SP Oct 2001	Overhead Wiring Base Safety and Operating Standards
EP 08 00 00 04 SP Nov 2001	Relative Positions of Signals and Airgaps
EP 08 00 00 05 SP Nov 2001	Methods of Rail Connecting 1500V OHW
EP 08 00 00 06 SP Nov 2001	Vegetation Control near 1500V DC Equipment Overhead Wiring Policy
EP 08 00 00 07 SP Nov 2001	Safety Screens for Bridges over 1500V OHW Equipment
EP 08 00 00 10 SP	Overhead Wiring Maintenance Standards
EP 08 00 00 12 SP Nov 2001	Level Crossings – OHW Clearance Requirements
EP 08 00 00 13 SP Jan 2002	Overhead Wiring Fittings and Materials
EP 08 00 00 14 SP April 2002	Services Erected Above Overhead Wiring
EP 08 00 00 16 SP Feb 2002	Designations of Overhead Wiring Conductor Systems
EP 08 00 00 17 SP May 2003	Overhead Wiring Conductor System Selection Criteria
EP 08 00 00 19 SP Jan 2002	Performance Specification for Overhead Wiring Post Insulator Units
EP 08 00 00 20 SP Jan 2002	Performance Specification for Overhead Wiring String Insulator Set
EP 08 00 00 21 SP Jan 2002	Insulator Type Tests – DC Power Arc Withstand

**RailCorp Traction Return Standard:**

EP 09 00 00 01 SP Aug 2002	Trackside Negative Bus-Rails
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**RailCorp Earthing, Bonding Electrolysis Standards:**

EP 12 00 00 01 SP Nov 2001	High Voltage and 1500 System Earthing References and Definitions
EP 12 00 00 02 SP Nov 2001	Low Voltage Distribution and Installation Earthing References and definitions
EP 12 10 00 10 SP Sept 2002	System Substation Earthing
EP 12 10 00 11 SP Nov 2001	Distribution Substation Earthing

EP 12 10 00 12 SP Nov 2001	Transmission Line and Cable Earthing
EP 12 10 00 13 SP Nov 2001	1500V Traction System Earthing
EP 12 10 00 20 SP Nov 2001	Low Voltage Distribution Earthing
EP 12 10 00 21 SP Nov 2001	Low Voltage Installations Earthing
EP 12 10 00 22 SP Nov 2001	Buildings and Structures Under Overhead Lines
EP 12 20 00 01 SP Nov 2001	Bonding of Overhead Wiring Structures to Rail
EP 12 30 00 01 SP Jan 2002	Electrolysis from Stray DC Current

**RailCorp Electrical General Standards:**

EP 00 00 00 01 TI Nov 2001	RIC Electrical System General Description
EP 00 00 00 02 SP Jan 2002	Electrical Technical Maintenance Coding System
EP 00 00 00 07 SP Nov 2001	Requirements for Handling & Disposal of Material Containing PCB
EP 00 00 00 08 SP Nov 2001	Safe Limits of DC Voltages
EP 00 00 00 12 SP Dec 2003	Electrical Power Equipment – Integrated Support Requirements
EP 00 00 00 13 SP Jan 2004	Electrical Power Equipment – Design Ranges of Ambient Conditions
EP 00 00 00 15 SP Jul 2004	Common Requirements for Electrical Power Equipment

**RailCorp Power Transformer Standards:**

EP 02 00 00 01 SP Nov 2001	Transformer Loss Evaluation
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**RailCorp Distribution Transformer Standards:**

EP 16 00 00 01 SP July 2002	Pole Mounted Distribution Transformer
EP 16 00 00 02 SP Aug 2002	Outdoor Ground Type Distribution Transformer

**RailCorp DC Switchgear Standards:**

EP 04 01 00 01 SP Dec 2004 1500 V High Speed DC Feeder Circuit Breaker

EP 04 00 00 02 SP Dec 2004 System Substation 1500 V DC Links and Switches

**RailCorp Fault Protection Standards:**

EP 19 00 00 01 SP Nov 2001 DCCB and Delta I Relay Setting Calculation Method

EP 19 00 00 02 SP Oct 2005 Protection System Requirements for High Voltage Network

EP 19 00 00 03 SP Aug 2002 Commissioning of Translay Pilot Wire Protection Scheme

**RailCorp HV AC Switchgear Standards:**

EP 01 00 00 01 SP Jul 2004 33 kV AC Indoor Switchgear: Non-Withdrawable

EP 01 00 00 02 SP Aug 2004 11 kV AC Indoor Switchgear – Non-Withdrawable

**RailCorp Low Voltage Standards:**

EP 17 00 00 06 SP Nov 2001 Installation Inspections

EP 17 00 00 11 SP Nov 2004 Low Voltage Isolating Transformers

EP 17 00 00 12 SP Nov 2001 Demarcation of RIC Low Voltage Distribution System

**RailCorp Transmission Lines Standards:**

EP 10 00 00 04 SP Nov 2001 Transmission Line Easement Conditions

EP 10 00 00 05 SP Nov 2001 Transmission Line Current Ratings & Standard Conductors

EP 10 01 00 03 SP Jan 2001 Transmission Line Base Safety and Operating Standards

EP 10 01 00 05 SP April 2002 Requirements for Electric Aerials Crossing RIC Infrastructure

**RailCorp HV AC & Traction Cable Standards:**

Rolling Stock PPP - Double Deck Trains  
Exhibit 7 – RailCorp Maintenance Facility Specification

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EP 20 10 00 01 SP Oct 2002	1500 Volt DC Cable Ratings
EP 20 10 00 02 SP Oct 2002	High Voltage Cable Selection Guide
EP 20 00 00 03 SP Oct 2002	Above Ground Cable Installation Systems – Selection Guide
EP 20 00 00 20 SP Oct 2002	Testing of High Voltage Cables
EP 20 00 03 01 SP Oct 2002	Requirements for Cable Polymeric Terminations and Joints
EP 20 00 04 01 SP Oct 2002	Cable Route Selection Guide
EP 20 00 04 02 SP Oct 2002	Underground Installation Configurations for High Voltage and 1500 V dc Cables
EP 20 00 04 04 SP Oct 2002	Ground Entry Arrangements
EP 20 00 04 05 SP Oct 2002	Cable Pits
EP 20 00 04 06 SP Oct 2002	Underground Cable – Location Recording