



**AUSTRALIAN RAIL TRACK CORPORATION LTD**

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**Discipline**  
**Engineering Standard - NSW**

**Category**  
**Electrical**

**Title**  
**Customer Installation Safety Plan**

**Reference Number**  
**PYP 02 - (RIC Standard: EP 95 00 30 03 SP)**

**Document Control**

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Issue 1 Revision 2	Mar 05	Standards and Systems	Signalling Standards Engineer	GM Infrastructure Strategy & Performance	Safety Committee
		Refer to Reference Number	T Moore	M Owens	Refer to minutes of meeting 24/01/05

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The technical content of this document has been approved by the relevant ARTC engineering authority and has also been endorsed by the ARTC Safety Committee.

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## About This Standard

This Customer Installation Safety Plan is a part of ARTC's system for the management of installation safety. The Plan includes, either directly or by use of references, the following:

- design, construction and maintenance standards required of customers for their electrical installations,
- testing, connection and notification criteria for contractors installing electrical installations,
- an inspection regime and procedures for directions to remedy faulty work and the disconnection of unsafe installations by the network operator.

This Customer Installation Safety Plan has been developed to meet the requirements of the Electricity Supply (Safety and Network Management) Regulation 2002 under the Electricity Supply Act 1995.

## Document History

**Primary Source** – RIC Standard EP 95 00 30 03 SP Version 2.2

### List of Amendments –

ISSUE	DATE	CLAUSE	DESCRIPTION
1.1	05/01/2005		Reformatted to ARTC Standard
1.2	11/03/2005	Disclaimer	Minor editorial change

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## Contents

About This Standard .....	3
Document History .....	4
<b>1 References .....</b>	<b>6</b>
1.1 Legislation .....	6
1.2 Electricity Association of NSW .....	6
1.3 Australian Standards .....	6
1.4 Rail Access Corporation .....	6
1.5 State Rail Authority .....	6
<b>2 Definitions and Abbreviations .....</b>	<b>7</b>
<b>3 Objective .....</b>	<b>7</b>
<b>4 Requirements of Customers .....</b>	<b>7</b>
4.1 Design & Construction .....	7
4.2 Maintenance .....	7
<b>5 Criteria for Contractors .....</b>	<b>7</b>
<b>6 Risk Management Strategy .....</b>	<b>8</b>
<b>7 Code of Practice – Service and Installation Rules .....</b>	<b>8</b>
<b>8 Code of Practice – Installation Safety Management .....</b>	<b>8</b>
<b>9 Relationship of the 1500 Volt Overhead Wiring to the Plan .....</b>	<b>8</b>

## **1 References**

The following documents are either referenced in this document or can provide further information.

### **1.1 Legislation**

Electricity Safety Act 1945.

Electricity Supply Act 1995.

Electricity Safety (Electrical Installations) Regulation 1998.

Electricity Supply (Safety and Network Management) Regulation 2002.

### **1.2 Electricity Association of NSW**

Code of Practice - Installation Safety Management.

Code of Practice - Service and Installation Rules.

Code of Practice - Distribution Risk Management.

New South Wales Service and Installation Rules.

### **1.3 Australian Standards**

AS 3000 - 2000 - SAA Wiring Rules.

AS/NZS 3017 - 1996 - Electrical Installations - Testing Guidelines.

### **1.4 Rail Access Corporation**

PDS 03 - "Low Voltage Distribution and Installations Earthing References and Definitions".

PDS 07 - "Low Voltage Distribution Earthing".

PDS 08 - "Low Voltage Installations Earthing".

PMP 03 - "Installation Inspections".

PDS 15 - "Demarcation of ARTC Low Voltage Distribution System".

### **1.5 State Rail Authority**

Service and Installation Rules (July 1989)

## 2 Definitions and Abbreviations

For the purpose of this specification the definitions given in the Electricity Safety (General) Regulation 1992 and the New South Wales Service and Installation Rules apply. In addition, further definitions are contained in ARTC specifications PDS 15 – "Demarcation of ARTC Low Voltage Distribution System" and PDS 03 – "Low Voltage Distribution and Installations Earthing References and Definitions".

## 3 Objective

The objective of the Customer Installation Safety Plan is to enhance the safety of electrical installations connected to the ARTC distribution system and ensure the safe connection of such installations to that system.

## 4 Requirements of Customers

### 4.1 Design & Construction

The design and construction of customers' electrical installations shall comply with the following:

- AS 3000 – SAA Wiring Rules
- New South Wales Service and Installation Rules
- State Rail Authority Service and Installation Rules
- Australian Rail Track Corporation Standards:
  - PDS 03 – “Low Voltage Distribution and Installations Earthing References and Definitions”
  - PDS 07 – “Low Voltage Distribution Earthing”
  - PDS 08 – “Low Voltage Installations Earthing”
  - EP 12 10 00 22 SP – “Buildings and Structures Under Overhead Lines” (RailCorp publication)

### 4.2 Maintenance

Customers shall maintain their electrical installations in accordance with Section 29 of the Electricity Safety Act 1945.

## 5 Criteria for Contractors

The testing, connection and notification criterion for contractors installing electrical installations is compliance with the Electricity Safety (Electrical Installations) Regulation 1998 and RailCorp publication EP 12 00 00 06 SP – “Installation Inspections” .

## **6 Risk Management Strategy**

Risk in the area of customers' electrical installations shall be managed by applying the Codes of Practice for Installation Safety Management and Service and Installation Rules.

This policy adheres to the principles set out in the Electricity Association of NSW Distribution Risk Management Code of Practice.

## **7 Code of Practice – Service and Installation Rules**

ARTC recognises the New South Wales Service and Installation Rules as set out in the Code of Practice – "Service and Installation Rules". However, ARTC stipulates the use of a Direct Earthing system, not the Multiple Earthed Neutral (MEN) system as specified in those Rules. This is to avoid the flow of dc traction current into the low voltage distribution system. The specific requirements are set out in ARTC specification PDS 08 – "Low Voltage Installations Earthing". ARTC requires that all installations supplied from its distribution system comply with this specification.

## **8 Code of Practice – Installation Safety Management**

This Plan complies with the Code of Practice – Installation Safety Management. ARTC's system for the management of the following aspects of customers' installation safety, are covered in ARTC specification PMP 03 – "Installation Inspections":

- Standard of Installation Work
- Work to be Tested
- Work to be Notified
- Inspection
- Remedy of Work Containing Safety Breaches
- Connection to Supply
- Audit Inspections
- Corrective Action
- Qualifications of Inspectors

## **9 Relationship of the 1500 Volt Overhead Wiring to the Plan**

The Codes of Practice for Installation Safety Management and Service and Installation Rules do not apply because neither 1500V overhead wiring nor electric rolling stock falls within the definition of an installation.