

Australian Standard™

**Installation of underground utility
services and pipelines within railway
boundaries**



Standards Australia

This Australian Standard was prepared by Committee CE/23, Utility Services in Common Trenches. It was approved on behalf of the Council of Standards Australia on 12 May 2000 and published on 19 July 2000.

The following interests are represented on Committee CE/23:

Australasian Corrosion Association
Australasian Railway Association
Brisbane City Council
Electricity Supply Association of Australia
Institution of Engineers Australia
South Australian Water Corporation
The Australian Gas Association
Water Services Association of Australia

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Australia website at www.standards.com.au and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Australian Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.com.au, or write to the Chief Executive, Standards Australia International Ltd, PO Box 1055, Strathfield, NSW 2135.

Australian Standard™

**Installation of underground utility
services and pipelines within railway
boundaries**

First published as AS 4799—2000.

COPYRIGHT

© Standards Australia International

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia International Ltd
PO Box 1055, Strathfield, NSW 2135, Australia

ISBN 0 7337 3446 4

PREFACE

This Standard was prepared by the Standards Australia Committee CE/23, Installation of Utility Services and Pipelines within Railway Boundaries.

The objective of this Standard is to provide contractors and railway personnel with specification for the installation, use and maintenance of services within railway boundaries.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

Currently in preview, click buy full vers.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	5
1.2 APPLICATION.....	5
1.3 REFERENCED DOCUMENTS.....	5
1.4 DEFINITIONS.....	6
SECTION 2 PROJECT DOCUMENTATION	
2.1 SCOPE OF SECTION.....	8
2.2 GENERAL.....	8
2.3 PLANS AND INFORMATION.....	8
SECTION 3 GENERAL REQUIREMENTS FOR SERVICES AND PIPELINES	
3.1 SCOPE OF SECTION.....	11
3.2 LOCATION OF SERVICES AND PIPELINES.....	11
3.3 DESIGN OF ENCASING PIPES AND NON-ENCASED CARRIER PIPES.....	12
3.4 PROTECTION AGAINST ELECTROLYSIS, CORROSION AND INDUCED CURRENTS.....	12
3.5 METHOD OF INSTALLATION.....	13
3.6 BORING AND JACKING OF PIPES UNDER TRACKS.....	13
3.7 TRENCHING AND TEMPORARY TUNNELLING UNDER TRACKS.....	14
3.8 DISPOSAL OF EXCAVATED MATERIAL.....	14
3.9 BACKFILLING OF EXCAVATIONS.....	14
3.10 MARKERS.....	15
3.11 RENEWAL OR REPLACEMENT OF SERVICE OR PIPELINE.....	15
3.12 CHANGE OF OPERATING CONDITIONS.....	15
3.13 CESSATION OF USE.....	16
3.14 WORK AS EXECUTED.....	16
3.15 WORKS OF THE CORPORATION.....	16
SECTION 4 REQUIREMENTS FOR PIPELINES CARRYING NON-FLAMMABLE SUBSTANCES	
4.1 SCOPE OF SECTION.....	17
4.2 GENERAL.....	17
4.3 PRESSURE PIPELINES UNDER TRACKS.....	17
4.4 NON-PRESSURE PIPELINES.....	19
SECTION 5 REQUIREMENTS FOR PIPELINES CARRYING COMBUSTIBLE LIQUIDS AND FLAMMABLE FLUIDS	
5.1 SCOPE OF SECTION.....	20
5.2 DESIGN REQUIREMENTS.....	20
5.3 CONSTRUCTION, INSPECTION, TESTING AND COMMISSIONING.....	22
5.4 VALVE LOCATIONS.....	22
5.5 COMPRESSOR STATIONS.....	22
5.6 FLARE POINTS.....	22

Page

SECTION 6 REQUIREMENTS FOR SERVICES

6.1 SCOPE OF SECTION.....	24
6.2 GENERAL.....	24
6.3 COMMUNICATION AND CATHODIC PROTECTION CABLES	24
6.4 POWER CABLES (HIGH AND LOW VOLTAGE).....	24

APPENDIX A PIPE SELECTION.....	8
--------------------------------	---

Currently in preview, click buy full vers.

STANDARDS AUSTRALIA

Australian Standard

Installation of underground utility services and pipelines within railway boundaries

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

The Standard sets out the technical requirements for the installation, use and maintenance of services such as communication, high-voltage and low-voltage electric power cables and pipelines carrying combustible liquids, flammable fluids and non-flammable substances laid under railway track or elsewhere, below ground, and within railway boundaries.

Requirements for pipelines carrying toxic or corrosive substances, or combustible solids, are not included in this Standard.

NOTES:

- 1 The services or pipelines to which this Standard applies should be designed, constructed, tested, and operated under some form of statutory authority licence, standard or regulation. This Standard does not supersede or take precedence over the requirements of any statute or regulation.
- 2 Work should not commence until the proposal has been approved by the Corporation and other relevant authority requirements have been specified.
- 3 The services or pipelines should be registered with one-call or dial before you dig services where available for the benefit of members of the public seeking the location of buried assets prior to excavation.

1.2 APPLICATION

All services and pipelines shall comply with the relevant requirements of Section 3, and with the following Sections as applicable:

- (a) Pipelines carrying non-flammable substances Section 4.
- (b) Pipelines carrying combustible liquids and flammable fluids Section 5.
- (c) Services Section 6.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS 128	Methods of testing soils for engineering purposes (All parts)
AS 1697	Gas transmission and distribution systems (known as the SAA Gas Pipeline Code)
AS 1762	Helical lock-seam corrugated steel pipes—Design and installation
AS 2832	Cathodic protection of metals
AS 2832.1	Part 1: Pipes and cables
AS 2885	Pipelines—Gas and liquid petroleum
AS 2885.1	Design and construction