AS/NZS 4836:2001

SAFE WORKING on low-voltage ELECTRICAL installations

Standards Australia **ST**

AS/NZS 4836:2001

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-044, Safe Working on Low-voltage Electrical Installations approved on behalf of the Council of Standards Australia on 21 February 2001 and on behalf of the Council of Standards New Zealand on 27 April 2001. It was published on 15 May 2001.

The following interests are represented on Committee EL-044:

A.C.T. Department of Urban Services Australasian Railway Association Australian Council of Trade Unions Australian Industry Group Cable & Wireless Optus Department of Fair Trading N.S.W. Department of Mineral Resources N.S.W. Electrical Contractors Association of New Zealand Electrical Safety Organization (New Zealand) Electricity Standards & Safety (Tasmania) Hunter Industry Electrical Safety Network Independent Electrical Switchboard Manufacturers Association Ministry of Economic Development (New Zealand) National Electrical and Communications Association Office of the Chief Electrical Inspector (Vic) Office of the Technical Regulator (S.A.) WorkCover N.S.W.

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 Standards may also be withdrawn.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 joint Australian/New Zealand Standards can be found by visiting the Standards Australia web site at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 99233.

Australian/New Zealand Standard[™]

Safe working on low-voltage electrical installations

First published as AS/NZS 4836:2001.

COPYRIGHT

© Standards Australia/Standards New Zealand

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.

Jointly published by Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 3806 0

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL/44, Safe Working on Low-voltage Electrical Installations.

The objective of this Standard is to provide workers on low-voltage electrical installations or systems with—

- (a) the principles of safe working practices; and
- (b) recommended procedures for safe working practices.

In the preparation of the Standard, reference was made to the *Code of Practice for Safe Electrical Work, Low Voltage Electrical Installations* produced by the Office of the Chief Electrical Inspector, Victoria and to the *Guide to electrical workers' safety practices* produced by WorkCover N.S.W.

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.

CONTENTS

| | | Page |
|------------|---|-----------|
| SECTI | ON 1 SCOPE AND GENERAL | _ |
| 1.1 | SCOPE | |
| 1.2 | APPLICATION | |
| 1.3 | ACTS AND REGULATIONS | |
| 1.4 | REFERENCED DOCUMENTS | |
| 1.5 | DEFINITIONS | |
| 1.5 | | |
| SECTI | ON 2 PRINCIPLES OF RISK MANAGEMENT AND ASSESSEMEN | T OF RISK |
| 2.1 | GENERAL | |
| 2.2 | PRINCIPLES | |
| 2.3 | IDENTIFY THE HAZARDS | |
| 2.4 | ASSESSING AND PRIORITIZING THE RISKS | |
| SECTI | ON 3 RISK CONTROL | |
| 3.1 | APPLYING CONTROL MEASURES | 14 |
| 3.1 | RISK CONTROL FOR PARTICULAR TYPES OF WORK | |
| 3.2 3.3 | RISK CONTROL FOR PARTICULAR TIPES OF WORK | |
| 5.5 | RISK CONTROL FOR SPECIAL SITUATIONS | |
| SECTI | ON 4 SAFETY EQUIPMENT AND TOOLS | |
| 4.1 | INSULATED TOOLS AND EQUIPMENT | |
| 4.2 | PORTABLE ELECTRIC TOOLS | |
| 4.3 | LADDERS AND STEP LADDERS | |
| 4.4 | ELEVATING WORK PLATFORMS AND SCAFFOLDING | |
| 4.5 | USE OF SAFETY BELTS AND HARNESSES | |
| 4.6 | INSULATING BARRIERS, COVERS AND MATS | |
| an ant | | |
| | ON 5 SAFETY OBSERVERS | • |
| 5.1 | USE OF SAFETY OBSERVERS | |
| 5.2 | RESPONSIBILITY. | |
| 5.3 | INSTRUCTIONS AND SKILLS | |
| 5.4 | PERSONAL PROTECTIVE EQUIPMENT | |
| 5.5 | DISABILITIES | |
| SECTI | ON 6 TEST EQUIPMENT | |
| 6.1 | GENERAL | 29 |
| | SUITABILITY OF EQUIPMENT | |
| 6.3 | TEST EQUIPMENT CHECKS | |
| 0.5 | | |
| SECTI | ON 7 TRAINING, QUALIFICATIONS AND COMPETENCE | |
| 7.1 | GENERAL | |
| 7.2 | SUPERVISION | |
| SECTI | ON 8 PERSONAL PROTECTIVE EQUIPMENT | |
| SECTI | ON 9 ELECTRICAL INCIDENTS | |
| 9.1 | MEDICAL ATTENTION | 30 |
| 9.1 | REPORTING | |
| 7.2 | | |
| APPEN | IDICES | |
| A | TYPICAL RISK ASSESSMENT FORM | 33 |
| B | CASE STUDIES OF ELECTRICAL INCIDENTS | |
| ~ | | |

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard Safe working on low-voltage electrical installations

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard outlines principles and procedures of safe work, organization and performance on or near low-voltage electrical equipment. It provides a minimum set of procedures, safety requirements and recommendations for a safe working environment on or near electrical equipment, installations or systems.

1.2 APPLICATION

This Standard applies to all persons, whether employees or self-employed and including powerline and cable workers, carrying out work on or near low-voltage electrical equipment, installations or systems.

The requirements of this Standard shall apply, whether or not quality systems are in place.

1.3 ACTS AND REGULATIONS

All employers and workers involved in the electrical industry have legal responsibilities under various Acts of parliament, associated regulations called up by an Act, documents called up by an Act or regulation, (collectively known as statutory requirements) or they may be of a contractual nature.

Details of some of these statutory requirements and the government agencies responsible for their administration are set out in Table 1.1. It is the responsibility of employers to ensure that the latest versions of these documents and any other relevant occupational health and safety requirements are applied at all work sites.



The remainder of this document is available for purchase online at <u>www.saiglobal.com/shop</u>

SAI Global also carries a wide range of publications from a wide variety of Standards Publishers:















Click on the logos to search the database online.