

Australian Standard[®]

High-voltage live working

Part 3: Stick work



This Australian Standard® was prepared by Committee EL-052, Electrical Energy Networks, Construction and Operation. It was approved on behalf of the Council of Standards Australia on 30 June 2010.

This Standard was published on 9 August 2010.

The following are represented on Committee EL-052:

- Australian Services Union
 - CIGRE
 - Communications, Electrical and Plumbing
 - Consumers' Federation of Australia
 - Electrical Regulatory Authorities Council
 - Energy Networks Association
 - National Electrical and Communications Association
 - National Generators Forum
-

This Standard was issued in draft form for comment as DR 09010.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

Keeping Standards up-to-date

Australian Standards® are living documents that 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Standards may also be withdrawn.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 that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting www.standards.org.au

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.org.au, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

Australian Standard[®]

High-voltage live working

Part 3: Stick work

First published as AS 5804.3—2010.

COPYRIGHT

© Standards Australia Limited

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, unless otherwise permitted under the Copyright Act 1968.

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 0 7337 9652 4

PREFACE

This Standard was prepared by the Standards Australia subcommittee EL-052-01, High-voltage Live Working for Committee EL-052, Electrical Energy Networks, Construction and Operation.

The objective of this Standard is to set out the minimum standards for high-voltage live stick work to ensure the safety of live workers and the general public.

This Standard is the third of a four Part series as follows:

AS

- 5804.1 Part 1: General
- 5804.2 Part 2: Glove and barrier work
- 5804.3 Part 3: Stick work (this Standard)
- 5804.4 Part 4: Barehand work

The intention of having four separate parts to the Standard is to highlight the different methods of live work.

Part 1 of this series is an integral part of each of the other parts of the series and intended to be read first.

The subsequent parts of this series are not intended to be read alone, but always in conjunction with Part 1.

This Standard has its origins in the documents of the former Electricity Supply Association of Australia (ESAA) documents; HB ESAA LLM 01—2000 *Guidelines for live line barehand work*, HB ESAA LLM 02—2000 *Guidelines for live line stick work*, HB ESAA LLM 03—2000 *Guidelines for live line glove and barrier work* and ESAA ND/NL 04—1995 *Guidelines for use of helicopters for live line work*. All but ESAA ND/NL 04—1995 are now published as Energy Networks Association (ENA) documents.

Over time, changes in Australian Standards, industry standards and legislative requirements, as well as technological advances and other factors relevant to the information contained in this document, may affect the accuracy of the information contained in this document. Accordingly, caution should be exercised in relation to the use of the information in this document.

Statements expressed in mandatory terms in notes to tables and figures are deemed requirements of this Standard.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	4
1.2 CONCEPT	4
1.3 REFERENCED DOCUMENTS	5
1.4 DEFINITIONS	6
SECTION 2 WORK PRACTICES	
2.1 MINIMUM REQUIREMENTS FOR STICK WORK.....	7
2.2 WORK PRACTICES SPECIFIC TO STICK WORK.....	7
2.3 ELECTRICAL RATING OF INSULATING STICKS	7
2.4 LIVE WORK STICK STRUCTURAL RATING.....	8
SECTION 3 COMBINED LIVE WORK METHODS	
3.1 GENERAL	9
3.2 COMBINATION OF STICK AND GLOVE AND BARRIER METHODS	9
3.3 COMBINATION OF STICK AND BAREHAND METHODS	9
SECTION 4 EQUIPMENT	
4.1 LIVE WORK STICKS	10
4.2 INSULATING BARRIERS	11
4.3 ROPES FOR LIVE WORK	12
4.4 OTHER EQUIPMENT	12
4.5 HELICOPTERS.....	12
SECTION 5 CARE AND MAINTENANCE OF EQUIPMENT	
5.1 LIVE WORK STICKS	13
5.2 INSULATING BARRIERS	13
5.3 ROPE FOR LIVE WORK	14
5.4 EQUIPMENT ELECTRICAL TESTING	14
5.5 MECHANICAL TESTING.....	16

STANDARDS AUSTRALIA

**Australian Standard
High-voltage live working****Part 3: Stick work**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out the minimum industry standards for live high-voltage stick work. The principles may be enhanced or supplemented provided this does not result in reduced safety standards.

THIS PART OF THE STANDARD SHALL ALWAYS BE READ IN CONJUNCTION WITH PART 1: GENERAL

This Standard applies to all work performed on live high-voltage electrical apparatus where the stick work method is used. Certain forms of work, such as operating work as defined in Part 1, are not be considered a live method and are not necessarily intended to be covered by this Standard.

This Standard does not constitute a live work training manual nor does it set down live work procedures. These procedures and techniques are to be developed in accordance with the principles in this Standard by the network operator or service provider for inclusion in their live work manual.

The objectives of this Standard are—

- (a) to ensure the safety of the live worker and the general public at the worksite; and
- (b) to specify the minimum standards required for work and equipment for the stick work method.

This Standard does not apply to live work sticks manufactured from wood.

This Standard applies to voltages up to and including 500 kV.

1.2 CONCEPT

Stick work is a method of performing live work based on the principle that the live worker always maintains a distance from any energized high-voltage electrical apparatus that is at least equal to the minimum approach distance (MAD), while performing live work using insulated live work sticks. The live worker operates insulated from the electrical apparatus being worked on. Access to the work can be from the ground, structure, a work platform or ladder attached to structure, elevating work platform, or work platform attached to a helicopter.