AS/NZS 3014:2003

Australian/New Zealand Standard™

Electrical installations – Electric fences

Standards Australia

STANDARDS NEW ZEALAND
Paerewa Aotearoa

This Joint Standard was prepared by the Joint Technical Committee EL/021, Installation of Electric Fences. It was approved on behalf of the Council of Standards Australia on 14 March 2003, and by the Council of Standards New Zealand on 5 March 2003. It was published on 14 March 2003.

The following interests are represented on the committee responsible for this Australian/New Zealand Standard:

Australian Chamber of Commerce and Industry
Australian Dairy Farmers' Federation
Consumers' Federation of Australia
Electrical Safety Organisation
Farmsafe Australia
Federated Farmers New Zealand
Ministry of Economic Development, New Zealand
New Zealand Electric Fence Energizers Manufacturers Standards Working Group
Office of the Chief Electrical Inspector, Victoria
Telecom New Zealand

PREPARATION OF JOINT AUSTRALIAN/NEW ZEALAND STANDARDS

Joint Australian/New Zealand Standards are prepared by a consensus process involving representatives nominated by organizations in both countries drawn from all major interests associated with the subject. Australian/New Zealand Standards may be derived from existing industry standards, from established international Standards and practices or may be developed within a Standards Australia, Standards New Zealand or joint technical committee. During the development process, Australian/New Zealand Standards are made available in draft form at all sales offices and through affiliated overseas bodies in order that all interests concerned with the application of a proposed Standard are given the opportunity to submit views on the requirements to be included.

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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 Standards may also be withdrawn.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 http://www.standards.com.au or Standards New Zealand web site at http://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 comment 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 01955 in Australia and in New Zealand.

Australian/New Zealand Standard™

Electrical installations – Electric fences

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FOREWORD

This Joint Standard was prepared by the Joint Technical Committee EL/021, Installation of Electric Fences, to supersede AS 3014:1991 on publication.

This Standard was revised to update the technical requirements and to publish it is as a joint Australia/ New Zealand Standard. Two informative Appendices have been added detailing acceptable means of compliance and methods for the prevention of interference with communication lines.

The Standard is intended to complement AS/NZS 3350:1998, Safety of household and similar electrical appliances Part 2.76: Particular requirements – Electric fence energizers

In the preparation of this Standard reference was made to a draft document on the international requirements for the installation and operation of electric fences, obtained from IEC Committee SC 61H-Safety of Electrically Operated Farm Appliances.

In this Standard, the use of the word:

'May' indicates the existence of an option;

'Shall' indicates that a statement is mandatory;

'Should' indicates a recommendation.

This Standard specifies performance-based requirements for the installation and operation of electric fences, however there could be regulatory or local government requirements that may apply. Appendix A provides a means of compliance with specific clauses of the Standard or gives additional information.

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1 SCOPE

This Standard sets out requirements for the installation and operation of electric fences and the connection to associated equipment both outdoors and indoors.

It covers electric fences powered by energizers supplied from all types of electric power sources such as batteries, solar cells, diesel or petrol generators, and the electricity supply mains.

NOTE – This Standard does apply to equipment not forming part of the electric fences, such as:

(a) Cattle prods;

(b) Electric fence energizers;

(c) Electric fishing machines;

(d) Animal stunning equipment;

(e) Meat stimulating equipment.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS/NZS 3350:1998, Safety of household and similar electrical appliances Part 2.76: Particular requirements – Electric fence energizers

3 DEFINITIONS

For the purpose of this Standard, the definitions below apply.

3.1 Building element – Any structural or non-structural component or assembly incorporated into or associated with a building. Included are fixtures, services, drains, permanent mechanical installations for access, glazing, partitions, ceilings and temporary supports.

3.2 Connecting lead – An electric conductor, used to connect the energizer to the electric fence or the earth electrode.

3.3 Earth electrode – Metal structure intended to provide effective electrical contact with earth that is driven into or is in the ground and connected electrically to the output earth terminal of the energizer, and that is independent of other earthing arrangements.

3.4 Electric fence – A barrier used to contain animals within or exclude animals from a particular area that includes one or more electric conductors, insulated from earth, to which regular electric pulses are applied by an energizer.

3.5 Energizer – Appliance that is intended to periodically deliver voltage impulses to a fence connected to it.

3.6 Feeder – Section of the electric fence supplying a number of branches.

3.7 Fence circuit – All conductive parts or components in a fence system, that are connected or