AS/NZS 62115:2008
IEC 62115 Ed 1.1, IDT

AS/NZS 62115:2008

Australian/New Zealand Standard™

Electric Toys—Safety

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-002, Safety of household and similar electrical appliances and small power transformers. It was approved on behalf of the Council of Standards Australia on 1 May 2008 and on behalf of the Council of Standards New Zealand on 11 April 2008.
This Standard was published on 30 May 2008.

The following are represented on Committee EL-002:

Australian Industry Group
Australian Retailers Association
Australian Electrical and Electronic Manufacturers Association
Business New Zealand
Consumer Electronic Suppliers Association, Australia
Consumers' Federation of Australia
Electrical regulatory authorities, Australia
Electrical Compliance Testing Association
Electrical consultants
Ministry of Economic Development, New Zealand
New Zealand Electric Fence Energizer Manufacturers' Standards Group

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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 or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 07957.

Australian/New Zealand Standard™

Electric Toys—Safety

First published as AS/NZS 62115:2008.

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 8652 9

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AUSTRALIA/NEW ZEALAND STANDARD

ELECTRIC TOYS – SAFETY

FOREWORD

This standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-002 – Safety of Household and Similar Electrical Appliances and Small Power Transformers and CS-018 – Safety of Children's Toys.

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with safety requirements designed to give the user protection against hazards that might occur during normal operation and abnormal operation of the electric toy and which may be used as the basis for approval for sale or for connection to the electricity supply mains in Australia and New Zealand

This Standard is an adoption with national modifications and contains the full text of the first edition of IEC 62115:2003, *Electric Toys – Safety* including its amendment 1 (2005) and has been varied as indicated to take account of Australian and New Zealand conditions.

NOTE The following print types are used:

– requirements: in roman type;

– *test specifications: in italic type*;

– notes: in small roman type.

Words in **bold** in the text are defined in clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

The numbering of clauses, subclauses, notes, tables, figures and annexes follows that of IEC 62115:Ed 1.1. To allow for the introduction of additional material by the IEC, the numbers 101 to 200 have been reserved. To allow for additional material to be introduced by Australia and New Zealand, the numbers 201 to 300 are used to number further clauses, subclauses, notes, tables and figures.

This scheme has been introduced to reduce the likelihood of the IEC and Australia and New Zealand using the same identifier for different purposes.

The use of the word VOID indicates that the IEC text is not used in Australia or New Zealand. The use of this word also avoids the need to renumber, clauses, notes, tables and figure if an earlier clause, note, table or figure is not used.

Clause 2 and the bibliography have been reformatted to indicate the Australia/New Zealand standard that is equivalent to the IEC standard or ISO standard to which normative reference is made.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown on the cover and title page only.

(b) In the source text "this International Standard" should read "this Australian/New Zealand Standard".

A full point substitutes for a comma when referring to a decimal marker.

Variations to IEC 62115:Ed 1.1 are indicated at the appropriate places throughout this standard. Strikethrough (~~example~~) identifies IEC tables, figures and passages of text which, for the purposes of this Australian/New Zealand standard are deleted. Where Australian/New Zealand tables, figures or passages of text are added, each is set in its proper place and identified by shading (example). Added figures are not themselves shaded, but are identified by a shaded border.

Variations are also listed in Annex ZZ for easy reference.

INTRODUCTION

It has been assumed in the drafting of this International Standard that the execution of its provisions is entrusted to appropriately qualified and experienced people.

As a general rule, toys are designed and manufactured for particular categories of children. Their characteristics are related to the age and stage of development of the children and their intended use presupposes certain capabilities.

Accidents are frequently due to a toy either being given to a child for whom it is not intended or being used for a purpose other than for which it was designed. This standard does not eliminate parental responsibility for the appropriate selection of toys. It is assumed that when choosing a toy or a game, account is taken of the physical and mental development of the child who will be playing with it.

The aim of this standard is to reduce risks when playing with toys, especially those risks that are not evident to users. However, it has to be recognized that some toys have risks inherent in their use that cannot be avoided. Consideration has been given to reasonably foreseeable use, bearing in mind that children are not generally as careful as adults.

While this standard applies to new toys, it nevertheless takes into account the wear and tear of toys in use.

The fact that a toy complies with this standard does not absolve parents and other persons in charge of a child from the responsibility of supervising the child. Supervision is also necessary when children of various ages have access to the same toy.

This standard covers the whole range of electric toys from small button cell operated lights to large sit-on cars powered by lead-acid cells. This results in different requirements and tests according to the type of toy. For some toys, testing can be reduced if particular criteria are met (see Clause 6).

A toy that complies with the text of this standard will not necessarily be judged to comply with the safety principles of the standard if, when examined and tested, it is found to have other features that impair the level of safety covered by these requirements.

A toy employing materials or having forms of construction differing from those detailed in the requirements of this standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be judged to comply with the standard.

The essential safety requirements in AS/NZS 3820 that could be applicable to electric toys are covered by this standard.

ELECTRIC TOYS – SAFETY

1 Scope

This International Standard deals with the safety of **toys** that have at least one function dependent on electricity.

NOTE 1 Examples of **toys** also within the scope of this standard are

– **constructional sets**;

– **experimental sets**;

– functional **toys** (models that have a function similar to an appliance or installation used by adults);

– video **toys** (**toys** consisting of a screen and activating means, such as a joystick or keyboard. Separate screens having a **rated voltage** exceeding 24 V are not considered to be a part of the **toy**).

Additional requirements for **experimental sets** are given in Annex A.

Toys using electricity for secondary functions are within the scope of this standard.

NOTE 2 A doll's house having an interior lamp is an example of such a **toy**.

Additional requirements for **toys** incorporating **lasers** and **light-emitting diodes** are given in Annex E.

In order to comply with this standard, electric toys also have to comply with ISO 8124-1, since it covers hazards other than those arising by the use of electricity.

NOTE 3 **Transformers for toys** and battery chargers are not considered to be a **toy**, even if supplied with it.

NOTE 4 If it is intended that a child also plays with the packaging, the latter is considered to be part of the **toy**.

NOTE 5 This standard does not apply to

– toy steam engines;

– scale models for adult collectors;

– folk dolls and decorative dolls and other similar articles for adult collectors;

– sports equipment;

– aquatic equipment intended to be used in deep water;

– equipment intended to be used collectively in playgrounds;

– amusement machines (IEC 60335-2-82);

– professional **toys** installed in public places (shopping centres, stations, etc.);

– products containing heating elements intended for use under the supervision of an adult in a teaching context;

– portable child-appealing luminaires (IEC 60598-2-10);

– Christmas decorations.