

REPLACEMENT EXPLANATORY STATEMENT

Issued by the Authority of the Minister for Small Business and Assistant Treasurer

Competition and Consumer Act 2010

Consumer Protection Notice No. 3 of 2016

Imposition of interim ban on hoverboards that do not meet specific safety requirements

The Minister for Small Business and Assistant Treasurer has imposed an interim ban which prohibits the supply of hoverboards that do not meet certain specified safety requirements.

The interim ban applies to the supply of hoverboards that do not meet either:

- the requirements of the International Electrotechnical Commission (IEC) standard *IEC 62133 Edition 2.0 2012-12* and sections 11 and 19 (as amended by Annex B) of the IEC standard *IEC 60335-1 Edition 5.1 2013-12* (or sections 11 and 19 (as amended by Annex B) of *AS/NZS 60335.1:2011 (incorporating amendment Nos 1, 2 and 3)* which adopt IEC 60335); or
- certain specified sections of *UL 2272 – Outline of Investigation for Electrical Systems for Self-balancing Scooters*).

Specifically, the interim ban applies to hoverboards which do not meet the requirements of either:

(a) the following IEC standards:

- i. for batteries, as specified in *IEC 62133 Edition 2.0 2012-12 - Secondary Cells and Batteries containing Alkaline or other Non-acid Electrolytes - Safety Requirements for Portable Sealed Secondary Cells, and for Batteries made from them, for use in Portable Applications* (IEC 62133); and
- ii. for battery control systems preventing electrical appliances from attaining excessive temperatures in normal use, as specified in section 11 as amended by Annex B, of *IEC 60335-1 Edition 5.1 2013-12 Household and similar Electrical Appliances - Safety - Part 1: General Requirements* (IEC 60335-1) or as specified in section 11 as amended by Annex B, of *AS/NZS 60335.1:2011 (incorporating amendment Nos 1, 2 and 3)*; and
- iii. for battery control systems preventing abnormal operation of electrical appliances, as specified in section 19, as amended by Annex B, of *IEC 60335-1 Edition 5.1 2013-12 Household and similar Electrical Appliances - Safety - Part 1: General Requirements* or as specified in section 19, as amended by Annex B, of *AS/NZS 60335.1:2011 (incorporating amendment Nos 1, 2 and 3)*;

OR

(b) the requirements for:

- i. Fuses as specified in section 11 of the Underwriters Laboratories Inc. (UL) document *UL 2272 – Outline of Investigation for Electrical Systems for Self-balancing Scooters* (UL 2272)
- ii. Protective circuits and safety analysis as specified in sub-sections 15.1, 15.2, 15.3, 15.4 and 15.5 of *UL 2272 – Outline of Investigation for Electrical Systems for Self-balancing Scooters*

- iii. Cells as specified in section 16 of *UL 2272 – Outline of Investigation for Electrical Systems for Self-balancing Scooters*
- iv. Overcharging as specified in section 23 of *UL 2272 – Outline of Investigation for Electrical Systems for Self-balancing Scooters*
- v. Short circuit protection as specified in section 24 of *UL 2272 – Outline of Investigation for Electrical Systems for Self-balancing Scooters*
- vi. Temperature control as specified in section 26 of *UL 2272 – Outline of Investigation for Electrical Systems for Self-balancing Scooters*
- vii. Cell imbalanced charging as specified in section 27 of *UL 2272 – Outline of Investigation for Electrical Systems for Self-balancing Scooters*

The Minister for Small Business and Assistant Treasurer has certified that an interim ban on hoverboards that do not meet specified safety requirements should be imposed without delay pursuant to section 132J of the *Competition and Consumer Act 2010* (Cth) (the CCA), because it appears to her that hoverboards which do not meet specified safety requirements create an imminent risk of death or serious injury. This certification was based on evidence of the frequent occurrence of fires caused by hoverboards while being charged, including four house fires in Australia since January 2016 resulting in the complete destruction of two of those houses.

Background

Section 109(1)(a) of the *Australian Consumer Law* (the ACL), Schedule 2 to the CCA, provides that a responsible Minister (including the Commonwealth Minister) may impose an interim ban on consumer goods of a particular kind if it appears to the responsible Minister that consumer goods of that kind, or a reasonably foreseeable use (including a misuse) of consumer goods of that kind, will or may cause injury to any person.

Section 132J(1)(a) of the CCA provides that, if it appears to the Commonwealth Minister that consumer goods of a particular kind create an imminent risk of death, serious illness or serious injury, the Commonwealth Minister may certify by written notice published on the internet, that an interim ban should be imposed on the consumer goods without delay.

If the Commonwealth Minister certifies that an interim ban should be imposed on the consumer goods without delay pursuant to section 132J of the CCA, section 132E of the CCA requires the Minister to invite any person who supplied or proposes to supply consumer goods of that kind to notify the Australian Competition and Consumer Commission (ACCC) within a specified notice period that they wish the ACCC to hold a conference in relation to the interim ban.

Risk of death or serious injury resulting from fires caused by hoverboards

Hoverboards have been associated with fires, and smoking, overheating and sparking incidents, in Australia and overseas.

In Australia, there have been four reports of house fires attributable to hoverboards, two of which resulted in complete destruction of the house. In each case of fire, the hoverboard was being charged when it caught fire.

There have also been seven further reports of incidents involving smoking, overheating or sparking of hoverboards while charging. Reports from electrical safety regulators and fire authorities following investigation of fires have concluded that observable fire damage indicates that the fires were likely to have started in the battery pack of the hoverboard while the hoverboard was being charged.

This is consistent with the experience in other jurisdictions. The United States Consumer Product Safety Commission (CPSC) has received over 50 reports of hoverboard related fires across 24 US states. The CPSC's investigation of hoverboards has found that a number of hoverboards do not have

adequate electrical control circuits to prevent lithium-ion battery over charging, excessive battery current flow and battery temperature control.

Based on the Australian and international evidence, it appears that hoverboards, or the reasonably foreseeable use of hoverboards, may cause injury to persons, as a result of the risk of fire and overheating while charging.

Electrical safety regulators from Queensland, New South Wales and Victoria have provided advice that, to reduce the risk of an electrical fire, as a minimum, hoverboards should include appropriate components and electrical circuitry to safely manage:

- battery charging;
- battery discharging;
- battery temperature control; and
- unbalanced charge in multiple lithium-ion battery cells.

Publicly available reports on the safety of lithium-ion batteries support that advice.

Requiring these safety measures to be included in all hoverboards sold in Australia will reduce the risk of fire in lithium-ion batteries in the hoverboard, and thereby reduce the risk of injury to consumers.

The International Electrotechnical Commission (IEC) is a global organisation that prepares and publishes International Standards for electrical and electronic technologies.

IEC 62133 sets out safety requirements for portable sealed secondary (rechargeable) cells and for batteries made from cells for use in portable applications.

IEC 60335-1 specifies general safety requirements for household and similar electrical appliances. Section 11 specifies requirements to reduce the risk that appliances and their surroundings will attain excessive heating. Section 19 includes requirements to reduce, amongst other things, fire hazard as a result of abnormal operation. AS/NZS 60335.1 adopts relevant sections of IEC 60335-1.

Separately, Underwriters Laboratories Inc. has developed and published *UL 2272 – Outline of Investigation for Electrical Systems for Self-balancing Scooters*. The outline of investigation includes requirements for the electrical drive train system, including the battery and charger system combinations, for electric-powered self-balancing scooters (hoverboards). The requirements of UL 2272 specified in the Interim Ban Notice require hoverboards to include appropriate components and electrical circuitry to manage each of the matters listed above.

For these reasons, the imposition of this interim ban to prevent the supply of hoverboards that do not comply with specified safety requirements in the IEC standards listed above or UL 2272 is expected to reduce the risk of fire in hoverboards, and thereby reduce the risk of death and serious injury.

Consultation

Section 131E of the CCA provides that an interim ban made under section 109 of the ACL is a legislative instrument for the purposes of the *Legislative Instruments Act 2003* (LIA). Section 17 of the LIA requires that the rule maker should consult prior to making a legislative instrument.

Prior to the imposition of the interim ban, the ACCC contacted all known hoverboard suppliers and advised them that the ACCC was considering options to reduce the risk of house fires caused by hoverboards and that one of the options under consideration was a recommendation to the Minister

for Small Business and Assistant Treasurer that she impose an interim ban on hoverboards that do not meet specific safety requirements of UL 2272.

Suppliers were advised that, given the number of house fires and incidents involving smoking, overheating or sparking of hoverboards while charging, the ACCC may recommend that the Minister impose an interim ban immediately, on the basis that hoverboards that do not comply with specific safety requirements in UL 2272 create an imminent risk of death or serious injury.

Suppliers were invited to make submissions to the ACCC in response to the options being considered. Thirty two submissions were received.

A number of submissions suggested that hoverboards that meet the requirements of the IEC standards referred to above should also be excluded from any ban. The Electrical Regulatory Authorities Council (ERAC) has also stated that hoverboard battery charging functionality, ancillary electronics and supply units could be assessed against the IEC standards.

In light of submissions and statements by ERAC on the suitability of the IEC standards as well as supplier feedback, the proposed interim ban was amended to exclude hoverboards that comply with the IEC standards (or alternatively the AS/NZS standards which adopt the relevant sections of IEC 60335-1).

Commencement

This legislative instrument commences on the day specified in the instrument.

Disallowance

This legislative instrument is not subject to disallowance due to section 44 of the *Legislation Act 2003*.

Sunsetting

This legislative instrument is not subject to sunseting due to section 54 of the *Legislation Act 2003*.