Consultation paper

Options for addressing the supply of unsafe hoverboards

ACCC

16 May 2016
Australian Competition and Consumer Commission
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1. Overview

As you may be aware, there is an interim ban on hoverboards that do not meet specific safety requirements.

This paper is part of a targeted and ongoing consultation with hoverboard suppliers, electrical safety regulators and consumer groups. The Australian Competition and Consumer Commission (ACCC) seek your input on the next steps to address the hazards of unsafe hoverboards when the interim ban ends.

On 11 May 2016, the Minister announced that she had extended the interim ban by 30 days, so it will remain in force until 16 June 2016. The Minister may extend the interim ban for a further period of up to 30 days. This means the interim ban cannot remain in force beyond 16 July 2016.

The interim ban was imposed because hoverboards had been associated with four house fires in Australia since January 2016, including two that destroyed houses. Since the interim ban was imposed, the ACCC has become aware of another two house fires associated with hoverboards, including one that destroyed the house. More information on hoverboard safety is available at www.accc.gov.au/hoverboards.

The ACCC would appreciate your comment on the options set out below.

Please email your response to productsafety.regulation@accc.gov.au by 31 May 2016.

2. Policy options for addressing the supply of unsafe hoverboards

Summary of standards discussed below.

UL 2272

IEC 60335-1
- IEC 60335-1 Household electrical appliances general safety standard

AS/NZS 60335.1
- AS/NZS 60335.1 Household electrical appliances general safety standard (which adopts, with national modifications, IEC 60335-1).

UL 2580
- UL 2580 – Batteries for use in electric vehicles

IEC 62133
- IEC 62133 battery safety standard for portable applications

Option 1 – No further action once the interim ban ends (no specific regulation for the supply of hoverboards)

Under this option, suppliers would be free to supply all hoverboards after the interim ban expired. The general requirements of the Australian Consumer Law (ACL) would still apply, as would state and territory electrical safety requirements (e.g. for chargers) as they evolve over time.
State and territory electrical safety regulators would continue to monitor the market for non-compliant electrical chargers. The ACCC would continue to monitor recalls of hoverboards with non-compliant electrical chargers negotiated by electrical safety regulators.

ACL regulators including the ACCC would continue to have responsibility for monitoring incidents of fires and injuries from hoverboards and for surveying the market and testing the safety of hoverboards. The requirements of the expired interim ban would help regulators to establish whether a particular hoverboard model might cause injury. Where an ACL regulator found that a supplier had taken unsatisfactory action to prevent their hoverboards causing injury, they could negotiate with the supplier to recall them from the market.

Regulators would continue targeted messaging to suppliers and consumers to make them aware of the safety hazards when storing, charging and using hoverboards.

**Issues**

Some suppliers have taken a number of different steps in an effort to supply safe hoverboards. However, others have not and without some form of regulation, the supply of unsafe hoverboards may resume.

Hoverboards have caused six house fires and there have been seven instances of hoverboards sparking or overheating in Australia since June 2015.

**Option 2 – Permanent ban on hoverboards that do not meet specific safety requirements**

Under section 114 of the ACL, the Commonwealth Minister may impose a permanent ban on consumer goods of a particular kind, including where an interim ban on those goods is in force. Under this option, we propose that a permanent ban would mirror the current interim ban.

Unlike an interim ban that is in force for a specified period, a permanent ban continues in force until the Minister revokes it.

A permanent ban would prevent the supply of hoverboards unless they complied with specific safety requirements as summarised in the table below.

**Summary of requirements for options 2 and 3**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>UL 2272 option</th>
<th>IEC (or AS/NZS) option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>Section 16 of UL 2272</td>
<td>Compliance with IEC 62133</td>
</tr>
<tr>
<td></td>
<td>Compliance with this section, in effect, requires full compliance with the UL 2580 (battery standard for batteries used in electric vehicles)</td>
<td></td>
</tr>
<tr>
<td>Battery control system</td>
<td>Requires compliance with sections 11, 15.1, 15.2, 15.3, 15.4, 15.5, 23, 24, 26 and 27 of UL 2272</td>
<td>Requires compliance with section 11 – Heating and section 19 – Abnormal operation (both as amended by Annex B Appliances powered by rechargeable batteries) of either: IEC 60335-1 OR AS/NZS 60335.1</td>
</tr>
</tbody>
</table>
The safety requirements from UL 2272 and the IEC or AS/NZS standards specified in the table above relate to lithium-ion batteries and battery control systems and:

- prevent battery overcharging
- limit battery current flow
- control battery temperature
- limit voltage imbalance within the battery pack.

Issues

During previous consultation, suppliers have expressed concern about the impact of the term 'ban' on consumer and retailer confidence in the safety of the product. Consumers and retailers may not always understand the distinction between a complete ban on all hoverboards and a ban on hoverboards that do not meet specific safety requirements.

Option 3 – Mandatory safety standard with the same requirements as the interim ban

Under section 104 of the ACL, the Commonwealth Minister can make a safety standard for a consumer good of a particular kind, consisting of such requirements about specific matters as are reasonably necessary to prevent or reduce the risk of injury. A safety standard would prevent the sale of hoverboards in Australia unless they met specific safety requirements.

A mandatory safety standard under this option would specify safety requirements from UL 2272 and the relevant IEC or AS/NZS standards in a similar way to option 2 for a permanent ban as described above.

Under this option, we propose that the mandatory safety standard would mirror the current interim ban. The safety requirements are the same as those described under option 2 above.

Issues

Although quite similar in effect, mandatory safety standards facilitate the ongoing supply of safe goods whereas bans restrict the supply of unsafe goods. A mandatory safety standard could therefore help to restore consumer and retailer confidence in the safety of hoverboards.

A mandatory safety standard would also mean that hoverboard suppliers would need to nominate, when asked by an ACL regulator such as the ACCC under section 108 of the ACL, which method they used to comply with the safety standard. That is, suppliers would need to nominate the UL 2272, IEC 60335-1 or AS/NZS 60335.1 option detailed in the table under option 2 with which they complied.
Option 4 – Mandatory safety standard with additional requirements to the interim ban

A safety standard could specify additional requirements to those of the interim ban. These additional requirements would relate to a range of measures including mechanical protection, flammability, preventing ingress of water, labelling and warnings on the product.

At least one stakeholder has expressed a preference to require full compliance with IEC 62133 and full compliance with IEC 60335-1 (not just the sections of IEC 60335-1 set out in the interim ban).

A safety standard under this option could require all of IEC 62133 for batteries and all of IEC 60335-1 or all of UL 2272 except section 10 (UL 2272 section 10 conflicts with Australian state and territory electrical safety charger requirements) as summarised in the table below.

Summary of requirements for option 4

<table>
<thead>
<tr>
<th>Requirement</th>
<th>UL option</th>
<th>IEC (or AS/NZS) option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>All sections of UL 2580 (as required by section 16 of UL 2272)</td>
<td>All sections of IEC 62133</td>
</tr>
<tr>
<td>Hoverboard</td>
<td>All sections of UL 2272 (except section 10)</td>
<td>All sections of IEC 60335-1 OR All sections of AS/NZS 60335.1</td>
</tr>
</tbody>
</table>

Option 5 – Mandatory safety standard based on a current draft Australian/New Zealand voluntary standard

The Standards Australia/Standards New Zealand technical committee EL-002 is drafting a new Australian/New Zealand voluntary standard for hoverboards.

The EL-002 Committee is responsible for the Safety of Household and Similar Electrical Appliances and Small Power Transformers. That committee will consult on the draft standard in coming weeks.

After Standards Australia publishes this new voluntary standard, the ACCC could consult further about developing a mandatory safety standard that referenced it.

Hoverboard suppliers are encouraged to consider making submissions to Standards Australia on the draft standard when they publish the draft standard for comment.

Issues

The ACCC did not initiate this proposal but will participate in observing the EL-002 Committee process for this voluntary standard. We are unable to provide any detailed information on this proposal at this stage.

The ACCC understands that this voluntary standard may not be available until the end of 2016 and notes that the interim ban will lapse well before the end of 2016. Based on this timing, the option of making a safety standard by reference to this standard will not be viable in the short term but may be an option when Standards Australia publishes the final standard. Hoverboard suppliers are encouraged to comment on the possible benefits and limitations of this option.
Definition issues – Re-describing hoverboards as self-balancing scooters and amending the definition to capture a wider range of products

Any future regulation under options 2 to 5 could potentially include an amended definition as discussed below.

The interim ban defines hoverboards as:

*Two-wheeled ride-on devices with a single axle and no steering grips or handlebars; powered by a lithium-ion battery that is rechargeable via connection to a mains power supply.*

*Hoverboards are also known as self-balancing scooters, gliders, smart boards, sky walkers or mod boards.*

The ACCC is considering whether, rather than using the name 'hoverboard', we could refer to these products as 'self-balancing scooters'. This is similar to the description in Underwriters Laboratories UL 2272 Outline of Investigation for Electrical Systems for Self-balancing Scooters.

We are also considering whether any future regulation should extend to capture single-wheeled ride-on devices powered by lithium-ion batteries. The ACCC is aware of one house fire in the United Kingdom in October 2015 related to a single-wheeled device.

We seek views on changing the definition used in any future regulation to 'self-balancing scooters' defined as:

*One or two-wheeled ride-on devices with no steering grips, seats or handlebars; powered by a lithium-ion battery that is rechargeable via connection to a mains power supply.*

*Self-balancing scooters are also known as hoverboards, gliders, smart boards, sky walkers or mod boards.*
3. Comment

The ACCC invites stakeholders to comment on the following questions.

1. Which option do you prefer and why?
2. Are there other options for addressing the supply of unsafe hoverboards?
3. Do you have specific comments about the amended definition of the product?
4. What additional costs would you face under these options? Would they create additional manufacturing, compliance or testing costs for you?
5. Under option 4, hoverboards would need to meet additional requirements to those required under the interim ban. How much would your costs change and why? How long would you need to comply and why?

The ACCC will consider the responses before preparing advice to the Minister.

If you have any questions, please contact:

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Please email your response to productsafety.regulation@accc.gov.au by 31 May 2016.

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