EUROPEAN COMMISSION HEALTH & CONSUMERS DIRECTORATE-GENERAL



Directorate B – Consumer Affairs B3 – Product and Service safety

> Brussels, 3<sup>rd</sup> May 2010 M/465 EN

# STANDARDISATION MANDATE TO CEN

#### ON THE SAFETY OF CONSUMER-FITTED CHILD-RESISTANT LOCKING DEVICES FOR WINDOWS AND BALCONY DOORS.

# I. Background

Accidental falls from windows or balconies, is a leading cause of death or permanent brain or skeletal damage in children below 5 years<sup>1</sup>. They are a major problem in urban areas with a strong concentration of multi-storey blocks of flats, and peak in spring and summer, when windows are left open for longer periods.

In the Île-de-France (France) region, between May and September 2005, 67 accidental falls of children were registered, totalling almost 14 cases per month. In Denmark and Sweden, between 20 and 60 cases are registered every year. In the years between 1996 and 2003, the number of falls involving children averaged 79 per year in Greece, 130 per year in the Netherlands and 25 per year in the United Kingdom. Each year in the United States, 15–20 children under 10 years of age die, and more than 4000 are treated in hospital emergency rooms for window fall-related injuries.

Falls from 1 or 2 storeys are more frequently non-fatal, but cause serious injuries, sometimes permanent, and place a great burden on health care systems. In the US the annual medical costs related to falls from heights was estimated at around 10 million dollars. In the Netherlands, the annual average direct medical cost of an individual fall (including treatment in an emergency department or hospital) is estimated at around 860 euro per person, making the country's total medical costs 120 million euro a year for children falls.

As for any other unintentional accident, falls can be prevented. Modifying the surroundings of the child is proven to be an effective measure. In Europe there are national requirements for safe designs of guardrails, for the size of windows, as well as requirements relating to the presence and features of window bars and guards. However, these requirements are generally laid down in national construction codes, which vary from one Member State to another.

Safety experts also recommend the use of products designed to limit or block the opening of windows and balcony doors. These products are either integrated in the window or balcony door or can be retrofitted by the consumer.

<sup>&</sup>lt;sup>1</sup> WHO - Regional Office for Europe; Eurosafe-Child Safety Alliance

For the latter category, there are no European safety standards. At present, the main references for economic operators and market surveillance authorities are contained in some national and international standards and test methods.

The market price of these locks is very low, yet, their return in terms of lives saved, and the reduced burden for national health systems is enormous.

Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety (GPSD) aims at ensuring that only safe products are placed on the EU market. To that end, it establishes a general safety requirement for consumer products, supported by a definition of "safe" product.

Products that conform to European standards, which are drawn up and published in the Official Journal according to the procedure described in Article 4 of the GPSD, are presumed to be safe.

The Commission adopted on 7 January 2010 Decision 2010/11/EU setting the safety requirements to be met by European standards for consumer-fitted child-resistant locking devices for windows and balcony doors, with the view to requesting the European Committee for Standardisation (CEN) to develop European standards for these products.

The Commission Decision is annexed to the present mandate and forms an integral part of it.

# II. Joint market surveillance action on children locks.

Between 2005 and 2007, Austria, Denmark and Norway jointly carried out a project to evaluate the safety of consumer-fitted locking devices for windows and balcony doors available on the market and assess the suitability of existing national and international test methods. For the project specific requirements and test methods were developed. In addition, the joint project took into account the requirements developed by ANEC in a study on child-protective devices published in 2004<sup>2</sup>, as well as some requirements from the EN-71:1 on the safety of toys.

The project results showed that several of the models of locks tested could be disengaged by children, despite the child-resistant claim; other models collapsed, broke or did not withstand the ageing test and all models tested lacked some of the required basic instructions.

The report of the project, the test method and requirements developed as well as the ANEC study are annexed to this mandate and form an integral part of it.

# III. Existing standards and regulations

Greece, Sweden, Portugal and Scotland have national laws requiring environmental changes to prevent from falling out of windows in buildings with more than one storey/level.

<sup>&</sup>lt;sup>2</sup> <u>http://www.anec.org/attachments/r&t005-04.pdf</u>

There are no European harmonised standards laying down the safety requirements for the licks subject of this Mandate. However there are several European and international standards:

# • -Sweden:

In Sweden building regulations contain specific requirements for places "occupied by children". A section is dedicated to "windows, doors and similar" (BFS 1998:38), which requires that in spaces where children can be present, windows that can be opened and whose bottom frame is placed at a distance lower than 1.8 m from the floor shall have safety fittings, locking devices or other protection which limits the risk of children falling out. Balcony doors and similar shall have safety fittings and locking devices which prevent children from opening and passing through the door.

The relevant Swedish standards and test methods for locking devices is Nordtest NT Cons 018 (1990). Windows and French doors, Child-resistant devices: Strength and function. UDC 69.028.2

# • -United Kingdom

- BS 6375-2:2009. Performance of windows. Specification for operation and strength characteristics.
- BS 7950:1997. Specification for enhanced security performance of windows for domestic applications.
- BS 8213-1:2004. Windows doors and rooflights. Design for safety in use and during cleaning of windows, including door-height windows and roof windows. Code of practice.

# • United States

- ASTM F2006-08: Standard Safety Specification for Window Fall Prevention Devices for Non-Emergency Escape (Egress) and Rescue (Ingress) Windows.
- ASTM F 2090a, PS 120: Specification for Window Fall Prevention Devices with Emergency Escape (Egress) Release Mechanisms.

# **IV** Description of the mandated work

The locking devices covered by this mandate should be those fitted by consumers on windows or balcony doors. Locking devices that are integrated in the window or balcony door frames are covered by technical specifications laid down in Directive 89/106 of the Council of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products.<sup>3</sup>

The essential requirements adopted by the European Commission by Decision 2010/11/EU aim to identify suitable tests for the child-resistance of the locks, to ensure

<sup>&</sup>lt;sup>3</sup> OJ L 40, 11.2.1989, p.12.

their structural integrity throughout the expected lifetime as well as to ensure their resistance to ageing and exposure to weather conditions. The essential requirements also require the provision of clear instructions and information to users.

For the development of the standard, attention should be paid to the child's stage of development (ability, weight, age, etc.).

The standards should include safety requirements and test methods. Although the essential requirements attached to this mandate have been developed to address mainly usage of the products mostly in a domestic environment, consideration should be given to a foreseeable use in some professional or public environments (e.g. hotels, child-care centres, nursery schools).

Attention is drawn to the fact that both the test method developed in the joint action and the ANEC study recommend the use of a child-test panel.

In carrying out the mandated work, CEN is requested to consider existing standard(s) in this area as well as general guidelines on child safety, such as CEN guide 12 ("Child safety- Guidance for its inclusion in standards") and CEN TR 13387. CEN is also requested to take in due consideration the experience acquired and documents produced by CENT BT WG 184 and CEN/TC 398 *Project Committee - Child Protective Products.* In addition, due consideration shall be given to the test methods and requirements developed for the joint action carried out by Austria, Denmark and Norway and the relevant ANEC study

# V. Execution of the mandate

The European standard(s) shall be delivered within **30 months** of acceptance of the mandate at the latest. At this time the text of the standard in the three working languages of CEN (DE, EN, FR) shall be available, as well as the correct titles in the other official European Union languages.

CEN shall inform the Commission of the arrangements to be adopted for the execution of the work within **three months** of acceptance of this mandate. CEN will submit to the Commission twice a year a report on the execution of the mandate.

CEN shall develop the draft standard in close consultation with the European Commission.

Acceptance by CEN of this mandate starts the standstill period referred to in Article 7 of the Directive 98/34/EEC of 22 June 1998 (OJ L 204, 21 July 1998, p. 37).

# VI. Bodies to be associated

ANEC (European association for the co-ordination of consumer representation in standardisation), ECOS, NORMAPME (European Office of Crafts, trades and Small and Medium-sized Enterprises for Standardisation) and ETUI-REHS (European Trade Union Institute – Research, Education, Health and Safety) should be invited to take part in the mandated work.

ANNEX 1



**EUROPEAN COMMISSION** 

Brussels, 7.1.2010 C(2009)10298 final

# **COMMISSION DECISION**

#### of 7.1.2010

on the safety requirements to be met by European standards for consumer-mounted childproof locking devices for windows and balcony doors pursuant to Directive 2001/95/EC of the European Parliament and of the Council

(Text with EEA relevance)

# **COMMISSION DECISION**

#### of 7.1.2010

#### on the safety requirements to be met by European standards for consumer-mounted childproof locking devices for windows and balcony doors pursuant to Directive 2001/95/EC of the European Parliament and of the Council

#### (Text with EEA relevance)

#### THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety,<sup>4</sup> and in particular Article 4(1)(a) thereof,

Whereas:

- (1) Directive 2001/95/EC provides for European standards to be established by European standardisation bodies. Such standards should ensure that products satisfy the general safety requirements of the Directive.
- (2) Under Directive 2001/95/EC a product is presumed safe, as far as the risks and risk categories covered by national standards are concerned, when it conforms to voluntary national standards transposing European standards.
- (3) Accidental falls from heights, such as windows or balconies, are a leading cause of death or permanent brain or skeletal damage in children below 5 years. They are a major problem in urban areas with a strong concentration of multi-storey blocks of flats, and peak in spring and summer, when windows are left open for longer periods. In the Île-de-France region, between May and September 2005, 67 accidental falls of children were registered, totalling almost 14 cases per month. In Denmark and Sweden, between 20 and 60 cases are registered every year. In the years between 1996 and 2003, the number of falls involving children averaged 79 per year in Greece, 130 per year in the Netherlands and 25 per year in the United Kingdom.
- (4) To reduce or prevent accidental falls, there are requirements on the size of windows, and on the presence and features of window rails and window guards. However, these requirements are generally laid down in national construction codes, which vary from one Member State to another.
- (5) On the market there are also products designed to limit or block the opening of windows and balcony doors. Such products are fitted by the consumer directly onto the window or balcony door.

<sup>&</sup>lt;sup>4</sup> OJ L 11, 15.1.2002, p. 4.

- (6) There are no European safety standards for these products. At present, the main references for economic operators and market surveillance authorities are contained in some national and international standards and test methods.
- (7) Between 2005 and 2007, Austria, Denmark and Norway jointly carried out a project to evaluate the safety of consumer-mounted locking devices for windows and balcony doors available on the market and assess the suitability of existing national and international test methods. In addition, participants took into account the requirements developed by ANEC<sup>5</sup> in a study on child-protective devices published in 2004,<sup>6</sup> as well as some requirements from the EN-71:1 standard on the safety of toys.
- (8) The project results showed that several of the models of locks tested could be disengaged by children, despite the childproof claim; other models collapsed, broke or did not withstand the ageing test and all models tested lacked some of the required basic instructions.
- (9) Therefore it is necessary to set specific requirements under Article 4(1)(a) of Directive 2001/95/EC and, on the basis of such requirements, subsequently mandate the drafting of European safety standards to ensure these devises are child resistant, retain structural integrity throughout their expected lifetime, are resistant to ageing and exposure to weather conditions and provide clear instructions and information to users. These standards should be developed in line with Directive 98/34/EC of the European Parliament and of the Council laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services.<sup>7</sup> The reference of the standard adopted should be published in the *Official Journal of the European Union*, in accordance with Article 4(2) of Directive 2001/95/EC.
- (10) The locking devices covered by this Decision should be only those fitted by consumers on windows or balcony doors. Locking devices that are integrated in the window or balcony door frame are covered by technical specifications laid down in Directive 89/106 of the Council of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products.<sup>8</sup>
- (11) Once the relevant standards are available, and provided that the Commission decides to publish their reference in the Official Journal, according to the procedure laid down in Article 4(2) of Directive 2001/95/EC, childproof consumer-mounted locking devices for windows and balcony doors should be presumed to conform to the general safety requirement of Directive 2001/95/EC, as far as the safety requirements covered by the standards are concerned.

<sup>&</sup>lt;sup>5</sup> ANEC- *The European consumer voice in standardisation*. http://www.anec.org/anec.asp.

<sup>&</sup>lt;sup>6</sup> <u>http://www.anec.org/attachments/r&t005-04.pdf</u>.

<sup>&</sup>lt;sup>7</sup> OJ L 204, 21.7.1998, p. 37.

<sup>&</sup>lt;sup>8</sup> OJ L 40, 11.2.1989, p.12.

(12) The measures provided for in this Decision are in accordance with the opinion of the Committee set up under Article 15 of Directive 2001/95/EC.

HAS ADOPTED THIS DECISION:

#### Article 1 **Definitions**

For the purposes of this Decision:

*consumer-mounted locking device*' means a device that either blocks or limits to a predetermined position the opening of a window or balcony door. Such device is designed to be retrofitted by the consumer to windows or balcony doors.

*Childproof*, or *"child resistant*", shall mean that the device cannot be disengaged by a child younger than 51 months.

# Article 2 **Requirements**

The specific safety requirements for the consumer-mounted childproof locking devices to be met by European standards pursuant to Article 4 of Directive 2001/95/EC shall be set out in the Annex to this Decision.

# Article 3

# Publication

This Decision shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

Done at Brussels, 7.1.2010

For the Commission The President José Manuel BARROSO

# ANNEX

# <u>Specific safety requirements and test methods for childproof, consumer-mounted</u> <u>locking devices for windows and balcony doors</u>

# Physical and mechanical properties

Window and balcony doors locking devices must be built to withstand wear by repeated opening and closing, both loaded and unloaded, as well ageing and exposure to all weather conditions, such as sunshine, rain, snow, ice, moisture, high and low temperatures, wind and remain child protective.

The devices must be able to withstand accidental impacts during their lifetime without breaking.

To fulfil their intended purpose, the devices must limit the opening distance between the frame and the casement to a maximum distance to effectively prevent the passage of a young child, bearing in mind, in particular, the developmental abilities and anthropometric measurements of children at different ages.

#### Small parts

To prevent choking hazards, detached or detachable small parts must be of such dimensions as to prevent their being swallowed and/or inhaled.

#### Sharp edges and projecting parts

To prevent punctures, cuts, shearing, scissoring or other physical injury, accessible edges must be rounded or chamfered and there must be no points or protruding surfaces.

#### **Entrapment of fingers**

The devices must not have accessible openings, bearing in mind the anthropometric measurement of children and their abilities at different ages.

#### Testing

Ageing against UV radiation and increased temperature, wear and tear, mechanical stability and child-proof function must be subject to specific testing methods. Products with flexible parts, such as chains, wires and ropes, must also be tested with a stamping method. The devices must not break and must be fully functional after the test.

The testing methods must be adapted, as appropriate, to test the performance of the locking devices for all types of windows (e.g. 'French' or 'casement windows', sash windows and sliding windows).

Forces in the tests shall be applied in the most onerous directions and must be measured with an uncertainty of measurement not exceeding  $\pm 1\%$ , and displacements with an uncertainty of measurement not exceeding  $\pm 1$  mm.

• Child test panel

The child protective function must be verified. Requirements in EN ISO 8317 on child resistant packaging must be used as a reference. The failure criteria laid down in that standard must be met.

#### **Product Information**

Product information must be provided to reduce the risk of potential foreseeable hazards connected with the use of the product.

Information concerning the safe use of the product must be provided. These instructions must include at least the following:

- The name or trade mark of the manufacturer, importer or organisation responsible for its sale.
- The instruction: 'Read this instruction carefully before mounting and using the device. The child protective function of the device may be affected if you do not follow the instructions. Keep the instructions for future reference.'
- Information on the type of windows for which the product is designed.
- Instructions on how and where to mount the devise correctly. Different instructions may be needed for different types of windows and different materials, such as wood, metal, plastic etc) Since assembling the device is vital for it to be child protective, the instructions must be precise and in some cases a special assembly tool may need to be provided.
- Any other information for safe use.