UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

BALLOT VOTE SHEET

DATE: DEC 2 3 2008

TO: The Commission
Todd A. Stevenson, Secretary

THROUGH: Cheryl A. Falvey, General Counsel CAF
Patricia Semple, Executive Director PS

FROM: Hyun S. Kim, Attorney, OGC HSK

SUBJECT: Children's Products Containing Lead; Exemption for Certain Electronic Devices; Notice of Proposed Rulemaking

Ballot Vote Due: JAN - 5 2009

Attached is a staff memorandum "Consumer Product Safety Improvement Act of 2008 (CPSIA) Exclusions and Exemptions from Compliance with Limits for Lead: Inaccessibility and Certain Electronic Devices," that sets forth (1) recommended guidance for determining whether a component part of a children's product is accessible to a child, and (2) recommended exemptions for electronic devices which cannot meet the lead limits because it is not technologically feasible. By separate (restricted) memorandum the Office of the General Counsel is providing a draft Federal Register notice of proposed rulemaking on exemptions for certain electronic devices for which it is not technologically feasible to meet the lead limits under the CPSIA.

Please indicate your vote on the following options.

I. Approve publication of the draft proposed rule on electronic devices in the *Federal Register* without change.

_____
(Signature)

_____
(Date)

CPSA 6(b)(1) CLEARED for PUBLIC
__ NO MFRS/PRVTLBLRS OR PRODUCTS IDENTIFIED
__ EXCEPTED BY: PETITION RULEMAKING ADMIN. PRCDG
WITH PORTIONS RED

Note: This document has not been reviewed or accepted by the Commission.
Initials RH **Date** 12-23-08

II. Do not approve publication of the draft proposed rule on electronic devices in the *Federal Register.*

_____ _____

(Signature) (Date)

III. Publish the draft proposed rule on electronic devices in the *Federal Register* with changes. (Please specify.)

_____

_____

_____

_____ _____

(Signature) (Date)

Attachment: Staff Memorandum: *Consumer Product Safety Improvement Act of 2008 (CPSIA) Exclusions and Exemptions from Compliance with Limits for Lead: Inaccessibility and Certain Electronic Devices.*

UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

Memorandum

Date: DEC 23 2008

TO : The Commission
Todd A. Stevenson, Secretary

THROUGH: Cheryl A. Falvey, General Counsel CAF
Patricia Semple, Executive Director PS

FROM : Robert J. Howell, Acting Assistant Executive Director, Office of Hazard Identification and Reduction RJH for RJH
Kristina M. Hatlelid, Ph.D., M.P.H., Toxicologist, Directorate for Health Sciences KH

SUBJECT : Consumer Product Safety Improvement Act of 2008 (CPSIA) Exclusions and Exemptions from Compliance with Limits for Lead: Inaccessibility and Certain Electronic Devices

Introduction

CPSIA subsection 101(a) establishes limits for the lead content of any part of a children's product. Subsection 101(b)(2) states that the lead limits do not apply to component parts of a product that are not accessible to a child. This subsection specifies that a component part is not accessible if it is not physically exposed by reason of a sealed covering or casing and does not become physically exposed through reasonably foreseeable use and abuse of the product including swallowing, mouthing, breaking, or other children's activities, and the aging of the product.

Subsection 101(b)(2)(B) provides that the Commission must promulgate a rule providing guidance with respect to what product components or classes of components will be considered to be inaccessible. However, the Act places restrictions on the types of products or the characteristics of products that may result in a lead-containing component part being considered inaccessible. This is expressed in subsection 101(b)(3), which specifies that paint, coatings, or electroplating may not be considered to be a barrier that would render lead in the substrate to be inaccessible to a child.

With respect to certain electronic devices for which complying with lead limits is not technologically feasible, Subsection 101(b)(4) provides that the Commission shall issue requirements by regulation to eliminate or minimize the potential for exposure to and accessibility of lead in such electronic devices.

In this memorandum, the CPSC staff seeks to provide a framework for determining whether lead-containing components of children's products are not accessible to children, and to address means for regulating certain electronic devices.

Proposed Accessibility Assessment

A component part of a product that contains lead at a level that exceeds the lead limits specified in the CPSIA may be excluded from compliance with the specified limits if the part is not accessible to a child. The Act specifies that accessibility is defined as physical contact with lead-containing component parts.

The staff would consider that an accessible component part of a children's product is one that a child may touch, and an inaccessible component part is one that is located inside the product, whether or not such part is visible to a user of the product, and cannot be touched by a child. While the staff believes that an inaccessible part may be enclosed in any type of material, *e.g.*, hard or soft plastic, rubber, metal, or fabric, the law does not allow for the use of surface treatments on a lead-containing component part in the form of paint, coatings, or electroplating as a barrier that would render lead in the substrate to be inaccessible to a child.

Since a lead-containing component part may be inside a product and not actually fully enclosed by another part of the product, children may have opportunities to contact lead-containing component parts; *e.g.*, they might touch a part with their fingers or tongues. The staff's proposed approach to addressing subsection 101(b)(2) is to describe means to test accessibility of potentially lead-containing component parts through evaluation of whether children might touch a lead-containing part.

Currently, the Commission addresses sharp points and sharp metal or glass edges on toys or other articles intended for use by children under age eight years. 16 CFR §§1500.48-1500.49 provide specific technical requirements for determining accessibility of sharp points or edges through use of accessibility probes specified in the subsections. Both subsections provide that a test of accessibility of sharp points or edges shall be applied both before and after use and abuse tests referencing 16 CFR §§1500.50 through 1500.53 (excluding the bite test—paragraph (c) of 16 CFR §§1500.51-1500.53). As defined in 16 CFR §§ 1500.48-1500.49, an accessible sharp point or edge is present in the product if the result of the test is that any part of the specified portion of the accessibility probe contacts the sharp part.

The ASTM F 963-07 Standard Consumer Safety Specification for Toy Safety also includes requirements for accessible sharp points and sharp edges through references to the definitions at 16 CFR §§1500.48-1500.49. As with the corresponding regulations, the ASTM F 963-07 standard indicates that accessibility is to be determined both before and after use and abuse tests.

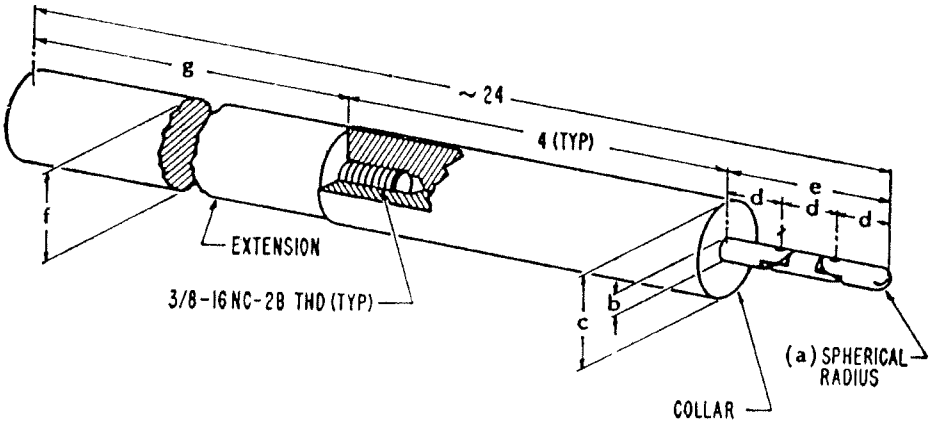
The staff proposes that the accessibility probes specified for determining accessibility of sharp points or edges be designated as appropriate for determining whether a lead-containing component part of a product is accessible to a child. An accessible lead-containing component part would be defined as one that contacts any portion of the specified segment of the accessibility probe. An inaccessible lead-containing component part would be defined as one that cannot be contacted by any portion of the specified segment of the accessibility probe. Under the provisions of the CPSIA, a lead-containing component part is not subject to the lead limits if it is not accessible to a child.

Description of accessibility probes

16 CFR §§1500.48-1500.49 provide technical requirements for two accessibility probes applicable to two categories of children's products, based on the age of the intended consumer. A detailed drawing is reproduced below as Figure 1.

The two probes differ by size for use with products intended for children aged three years or less (Probe A) or for children up to eight years (Probe B). The probe section of the test fixture is a jointed, three-segment cylindrical piece attached to a larger collared section (the part of the probe on the right side of the illustration in Figure 1). Under 16 CFR § 1500.48, for example, an accessible point is one that can be contacted by any portion forward of the collar. For children aged three years and younger, the probe section is 0.220 inches in diameter with each of the three sections 0.577 inches in length, for a total length of 1.731 inches.

Figure 1. Reproduction of Figure 2 from 16 CFR § 1500.48.



		a	b	c	d	e	f	g
(CHILDREN 0-36 MONTHS INCL)	PROBE A	.110	.220	1.020	.577	1.731	1	18 9/32
(" 37-96 " ")	PROBE B	.170	.340	1.510	.760	2.280	1 1/2	17 25/32

ALL DIMENSIONS IN INCHES

Use and abuse tests

16 CFR §§1500.50-1500.53 provide specific test methods for simulating normal use of toys and other articles intended for use by children as well as the reasonably foreseeable damage or abuse to which the articles may be subjected. The test methods are for use in exposing potential hazards that would result from the normal use or the reasonably foreseeable damage or abuse of such articles intended for children.

The first of these four sections (16 CFR §1500.50) describes the objective, general application of the tests, and definitions; the next three sections detail the test methods for articles intended for specified age groups of children: 18 months of age or less, over 18 months but not over 36 months of age, and over 36 months but not over 96 months of age. Products for each of the age groups may be subject to up to five[1] different tests (impact test, flexure test, torque test, tension test, and compression test) depending on the specifications of the regulations and the characteristics of the product.

[1] Although the bite test was promulgated as part of the use and abuse tests, the Commission does not currently apply this test.

The staff concludes that these use and abuse tests (excluding the bite test) are appropriate for evaluating whether lead-containing component parts of a product become accessible to a child during normal and reasonably foreseeable use and abuse of the product by a child, since the stated purpose of the tests is to simulate use and damage or abuse of a product by children and to expose potential hazards that might result from use and abuse.

Testing products for children aged 12 years and under

The existing testing paradigms for accessibility of sharp points and edges are intended for products for use by children in designated age groups up to age eight years. The staff concludes that the application of the current accessibility tests is sufficient for products intended for children older than age eight years, given that the accessibility probes are designed to test whether children's relatively small fingers might enter small holes, gaps, or recesses where they could physically contact certain components, and considering that older children's larger fingers would likely have more limited access to such small holes, gaps, or recesses.

Use and abuse testing is also designated for products for children up to age eight years. While the staff recognizes that as children age they gain strength and dexterity and participate in a greater range of activities that could lead to inaccessible components eventually becoming accessible, older children (ages nine through 12 years) also gain cognitive skills and knowledge that they use to care for and appropriately use their toys and articles. The staff believes, therefore, that applying the use and abuse tests described for products for children up to age eight years to products for children through age 12 years will appropriately reveal inherent characteristics or possible defects in products that could result in accessibility of components.

Further, the staff recognizes that as children 12 years of age or younger grow and mature, they become, in many respects, indistinguishable from children older than 12 years, and even adults. Consequently, the staff believes that intentional disassembly or destruction of products by children older than age eight years by means or knowledge not generally available to younger children should not be considered in evaluating products for accessibility of lead-containing components. For example, accessibility arising from the use of tools, such as a screwdriver, should not be considered in accessibility and use and abuse testing.

On the other hand, testing of products should consider the normal and expected children's interactions with products. For example, children may be expected to operate zippers, open unsealed and unsecured compartments, or remove unsecured covers. Products with such features should be evaluated for accessibility in all the intended and likely configurations of the product during use by children.

Certain Electronic Devices

Electronic devices are included in the children's products regulated under the provisions of the CPSIA. The law provides, however, that the Commission shall issue regulations concerning certain electronic devices to eliminate or minimize the potential for exposure to and accessibility of lead in such electronic devices if it is not technologically feasible to comply with the lead limits set by the Act.

Technological feasibility

The staff believes that in many cases it is not technologically feasible for electronic devices to comply with the lead limits. For example, cathode ray tubes in television sets or computer

monitors, certain electrical solders, and certain other electrical components may contain lead at levels that exceed the CPSIA lead limits.

Accessibility

Some lead-containing component parts of electronic devices are, by design, not accessible to children because the lead is fully enclosed within a component that is itself within the electronic device. Other components could be made to be inaccessible after consideration of normal and reasonably foreseeable use and abuse by children. Accessibility of the lead-containing component may be evaluated through application of the accessibility probes described in 16 CFR §§1500.48-1500.49, before and after use and abuse tests at 16 CFR §§1500.50-1500.53 (excluding the bite test). If a component is not accessible to a child, it is not subject to the lead limits.

International regulations and possible exclusions

Certain components cannot be produced without lead for safety reasons and cannot be made physically inaccessible. An example is a cathode ray tube, in which the lead in the glass protects users from the x-ray radiation generated by the device.

The European Union and other countries and authorities have adopted restrictions on the use of lead and other chemicals in electronic devices. The purpose of the restrictions is to address concerns related to human health and environmental impacts of waste electrical and electronic equipment. European Union Directive 2002/95/EC (attached Appendix A)[2] on the restriction of the use of certain hazardous substances in electrical and electronic equipment (often abbreviated as EU RoHS), implemented July 1, 2006, specifies that substances such as lead be substituted with safer materials. The directive specifies a maximum concentration for lead of 0.1 percent (equivalent to 1000 parts per million [ppm]) in each homogeneous material in an electronic device.

The directive allows certain exemptions "if substitution is not possible from the scientific and technical point of view or if the negative environmental or health impacts caused by substitution are likely to outweigh the human and environmental benefits of the substitution," but it also specifies that exemptions must be reviewed at least every four years with the aim of removing such exemptions if it becomes technologically or scientifically possible to replace the lead in a particular application. Most exemptions refer to specific types of products or components or other applications without providing restrictions on lead concentration. Other exemptions allow applications that exceed the generally applicable 1000 ppm limit for lead content, but specify alternate maximum lead concentrations for the indicated materials. There is no exemption in the directive based on inaccessibility, since the goal is to restrict the overall use of lead in products.

Some of the EU RoHS exemptions involve lead-containing components that would likely be inaccessible to children using electronic devices. Under the CPSIA, if the component is not accessible to a child, it would not be subject to the lead limits. The staff believes that some exempted uses of lead cannot be made inaccessible, such as the cathode ray tubes discussed above, and certain other components that create electrical connections or that are required for product functions.

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[2] European Union Directive 2002/95/EC and amendments to the directive are available at http://eur-lex.europa.eu/en/index.htm.

Because the EU RoHS exemptions were established in part considering the technological feasibility of limiting the use of lead, the staff recommends that the Commission consider adopting, as exemptions to the CPSIA lead limits for electronic devices, the exemptions published in the Annex to the Directive 2002/95/EC, provided that the exemption is based on a functional requirement both for the use of a lead-containing component and for the use of lead in such component (Appendix B). The existing EU RoHS exemptions for cathode ray tubes and certain components or the metal alloys used to make certain components allow the use of lead in applications for which substitution of the lead is not yet feasible. On the other hand, the directive provides an exemption for crystal glass used solely for decorative purposes. Since such use is not required for the function of the electronic device, the staff recommends that if the Commission adopts the EU RoHS exemptions, the crystal glass exemption and any other exemption for decorative or non-functional uses of lead should not be extended to children's electronic devices subject to the CPSIA lead limits.

Other considerations

Some components of electronic devices may be removable or replaceable. For example, battery packs and light bulbs may be provided as spare or replacement parts. Until such components are installed in the product, lead-containing parts may be accessible to a child. However, the staff recommends that spare parts or other removable components be considered inaccessible under the provisions of the CPSIA, provided that the lead-containing component is inaccessible when the product is assembled in functional form or if the component meets the criteria for exemption, such as under the possible exemptions with respect to EU RoHS.

All component parts of electronic devices that cannot be made inaccessible and that may not be excluded on the basis of exemptions such as those in the EU RoHS legislation must comply with the lead limits specified in the CPSIA if compliance is technologically feasible. The staff specifically refers to materials or components that comply with the EU RoHS directive on the basis of the general lead limit at 1000 ppm. The staff notes that the implementation of EU RoHS and similar regulations has resulted in enormous advances in electronics technologies. On the basis of preliminary and limited information obtained by the staff, the staff believes that in many, if not most, cases, materials and components used in electronic devices that meet the 1000 ppm limit will also meet the CPSIA's 600 ppm limit, possibly the 300 ppm limit, and even the 100 ppm limit in some cases. Therefore, the staff's expectation is that, with the exception of a few particular applications such as cathode ray tubes, electronic devices will comply with the CPSIA either through meeting the lead content limits or through the exception for inaccessibility of lead-containing component parts.

Because of the changing state of technology and continuing progress in replacing lead with other substances, staff will reevaluate the technological feasibility of compliance with the lead limits for electronic devices, including the status of EU RoHS limits and exemptions, at intervals of less than five years.

Conclusions

The staff believes that the current approach under existing regulations and voluntary standards for evaluating whether potentially hazardous sharp points or edges of children's products are accessible to a child is appropriate for gauging accessibility of lead-containing component parts of children's products. The established test procedures measure physical accessibility, *i.e.*, the ability of children to contact lead-containing parts with their fingers. Further, the staff concludes

that a reasonable application of use and abuse testing, as described in existing regulations and voluntary standards, is appropriate to assess the possibility that product breakage or children's activities could result in lead-containing component parts becoming accessible to a child.

For electronic devices, certain lead-containing components cannot be made inaccessible to children. Given that it is not technologically feasible to eliminate the use of lead or reduce the levels used in certain components, the staff recommends that the Commission adopt, as exemptions from the CPSIA lead limits for electronic devices, the exemptions published in the EU RoHS directive, provided that the exemption is based on a functional requirement both for the use of a lead-containing component and for the use of lead in such component. Specifically, the staff recommends that if the Commission adopts the EU RoHS exemptions, the crystal glass exemption and any other exemption for non-functional uses of lead should not be extended to children's electronic devices subject to the CPSIA lead limits.

The staff notes that in many cases, materials and components used in electronic devices that meet the 1000 ppm limit specified in EU RoHS will also meet the CPSIA's 600 ppm limit, possibly the 300 ppm limit, and even the 100 ppm limit in some cases. If the Commission adopts exemptions such as those in the EU RoHS legislation, then electronic devices could comply with the CPSIA by meeting any one of three conditions: 1) by meeting the lead content limits of the CPSIA; 2) by meeting the requirements for inaccessibility of lead-containing component parts; or 3) on the basis of the allowed exemptions.

Staff will reevaluate the technological feasibility of compliance with the lead limits for electronic devices, including the status of limits and exemptions in EU RoHS, or similar legislation, if adopted, at intervals of less than five years.

APPENDIX A

DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 27 January 2003

on the restriction of the use of certain hazardous substances in electrical and electronic equipment

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof,

Having regard to the proposal from the Commission [1],

Having regard to the opinion of the Economic and Social Committee [2],

Having regard to the opinion of the Committee of Regions [3],

Acting in accordance with the procedure laid down in Article 251 of the Treaty in the light of the joint text approved by the Conciliation Committee on 8 November 2002 [4],

Whereas:

(1) The disparities between the laws or administrative measures adopted by the Member States as regards the restriction of the use of hazardous substances in electrical and electronic equipment could create barriers to trade and distort competition in the Community and may thereby have a direct impact on the establishment and functioning of the internal market. It therefore appears necessary to approximate the laws of the Member States in this field and to contribute to the protection of human health and the environmentally sound recovery and disposal of waste electrical and electronic equipment.

(2) The European Council at its meeting in Nice on 7, 8 and 9 December 2000 endorsed the Council Resolution of 4 December 2000 on the precautionary principle.

(3) The Commission Communication of 30 July 1996 on the review of the Community strategy for waste management stresses the need to reduce the content of hazardous substances in waste and points out the potential benefits of Community-wide rules limiting the presence of such substances in products and in production processes.

(4) The Council Resolution of 25 January 1988 on a Community action programme to combat environmental pollution by cadmium [5] invites the Commission to pursue without delay the development of specific measures for such a programme. Human health also has to be protected and an overall strategy that in particular restricts the use of cadmium and stimulates research into substitutes should therefore be implemented. The Resolution stresses that the use of cadmium should be limited to cases where suitable and safer alternatives do not exist.

(5) The available evidence indicates that measures on the collection, treatment, recycling and disposal of waste electrical and electronic equipment (WEEE) as set out in Directive 2002/96/EC of 27 January 2003 of the European Parliament and of the Council on waste electrical and electronic equipment [6] are necessary to reduce the waste management problems linked to the heavy metals concerned and the flame retardants concerned. In spite of those measures, however, significant parts of WEEE will continue to be found in the current disposal routes. Even if WEEE were collected separately and submitted to recycling processes, its content of mercury, cadmium, lead, chromium VI, PBB and PBDE would be likely to pose risks to health or the environment.

(6) Taking into account technical and economic feasibility, the most effective way of ensuring the significant reduction of risks to health and the environment relating to those substances which can achieve the chosen level of protection in the Community is the substitution of those substances in electrical and electronic equipment by safe or safer materials. Restricting the use of these hazardous substances is likely to enhance the possibilities and economic profitability of recycling of WEEE and decrease the negative health impact on workers in recycling plants.

(7) The substances covered by this Directive are scientifically well researched and evaluated and have been subject to different measures both at Community and at national level.

(8) The measures provided for in this Directive take into account existing international guidelines and recommendations and are based on an assessment of available scientific and technical information. The measures are necessary to achieve the chosen level of protection of

[1] OJ C 365 E, 19.12.2000, p. 195 and OJ C 240 E, 28.8.2001, p. 303.
[2] OJ C 116, 20.4.2001, p. 38.
[3] OJ C 148, 18.5.2001, p. 1.
[4] Opinion of the European Parliament of 15 May 2001 (OJ C 34 E, 7.2.2002, p. 109), Council Common Position of 4 December 2001 (OJ C 90 E, 16.4.2002, p. 12) and Decision of the European Parliament of 10 April 2002 (not yet published in the Official Journal). Decision of the European Parliament of 18 December 2002 and Decision of the Council of 16 December 2002.
[5] OJ C 30, 4.2.1988, p. 1.
[6] See page 24 of this Official Journal.

human and animal health and the environment, having regard to the risks which the absence of measures would be likely to create in the Community. The measures should be kept under review and, if necessary, adjusted to take account of available technical and scientific information.

(9) This Directive should apply without prejudice to Community legislation on safety and health requirements and specific Community waste management legislation, in particular Council Directive 91/157/EEC of 18 March 1991 on batteries and accumulators containing certain dangerous substances [1].

(10) The technical development of electrical and electronic equipment without heavy metals, PBDE and PBB should be taken into account. As soon as scientific evidence is available and taking into account the precautionary principle, the prohibition of other hazardous substances and their substitution by more environmentally friendly alternatives which ensure at least the same level of protection of consumers should be examined.

(11) Exemptions from the substitution requirement should be permitted if substitution is not possible from the scientific and technical point of view or if the negative environmental or health impacts caused by substitution are likely to outweigh the human and environmental benefits of the substitution. Substitution of the hazardous substances in electrical and electronic equipment should also be carried out in a way so as to be compatible with the health and safety of users of electrical and electronic equipment (EEE).

(12) As product reuse, refurbishment and extension of lifetime are beneficial, spare parts need to be available.

(13) The adaptation to scientific and technical progress of the exemptions from the requirements concerning phasing out and prohibition of hazardous substances should be effected by the Commission under a committee procedure.

(14) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission [2],

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Objectives

The purpose of this Directive is to approximate the laws of the Member States on the restrictions of the use of hazardous substances in electrical and electronic equipment and to contribute to the protection of human health and the environmentally sound recovery and disposal of waste electrical and electronic equipment.

Article 2

Scope

1. Without prejudice to Article 6, this Directive shall apply to electrical and electronic equipment falling under the categories 1, 2, 3, 4, 5, 6, 7 and 10 set out in Annex IA to Directive No 2002/96/EC (WEEE) and to electric light bulbs, and luminaires in households.

2. This Directive shall apply without prejudice to Community legislation on safety and health requirements and specific Community waste management legislation.

3. This Directive does not apply to spare parts for the repair, or to the reuse, of electrical and electronic equipment put on the market before 1 July 2006.

Article 3

Definitions

For the purposes of this Directive, the following definitions shall apply:

(a) 'electrical and electronic equipment' or 'EEE' means equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields falling under the categories set out in Annex IA to Directive 2002/96/EC (WEEE) and designed for use with a voltage rating not exceeding 1 000 volts for alternating current and 1 500 volts for direct current;

(b) 'producer' means any person who, irrespective of the selling technique used, including by means of distance communication according to Directive 97/7/EC of the European Parliament and of the Council of 20 May 1997 on the protection of consumers in respect of distance contracts [3]:

(i) manufactures and sells electrical and electronic equipment under his own brand;

(ii) resells under his own brand equipment produced by other suppliers, a reseller not being regarded as the 'producer' if the brand of the producer appears on the equipment, as provided for in subpoint (i); or

(iii) imports or exports electrical and electronic equipment on a professional basis into a Member State.

Whoever exclusively provides financing under or pursuant to any finance agreement shall not be deemed a 'producer' unless he also acts as a producer within the meaning of subpoints (i) to (iii).

[1] OJ L 78, 26.3.1991, p. 38. Directive as amended by Commission Directive 98/101/EC (OJ L 1, 5.1.1999, p. 1).
[2] OJ L 184, 17.7.1999, p. 23.
[3] OJ L 144, 4.6.1997, p. 19. Directive as amended by Directive 2002/65/EC (L 271, 9.10.2002, p. 16).

Article 4

Prevention

1. Member States shall ensure that, from 1 July 2006, new electrical and electronic equipment put on the market does not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE). National measures restricting or prohibiting the use of these substances in electrical and electronic equipment which were adopted in line with Community legislation before the adoption of this Directive may be maintained until 1 July 2006.

2. Paragraph 1 shall not apply to the applications listed in the Annex.

3. On the basis of a proposal from the Commission, the European Parliament and the Council shall decide, as soon as scientific evidence is available, and in accordance with the principles on chemicals policy as laid down in the Sixth Community Environment Action Programme, on the prohibition of other hazardous substances and the substitution thereof by more environment-friendly alternatives which ensure at least the same level of protection for consumers.

Article 5

Adaptation to scientific and technical progress

1. Any amendments which are necessary in order to adapt the Annex to scientific and technical progress for the following purposes shall be adopted in accordance with the procedure referred to in Article 7(2):

(a) establishing, as necessary, maximum concentration values up to which the presence of the substances referred to in Article 4(1) in specific materials and components of electrical and electronic equipment shall be tolerated;

(b) exempting materials and components of electrical and electronic equipment from Article 4(1) if their elimination or substitution via design changes or materials and components which do not require any of the materials or substances referred to therein is technically or scientifically impracticable, or where the negative environmental, health and/or consumer safety impacts caused by substitution are likely to outweigh the environmental, health and/or consumer safety benefits thereof;

(c) carrying out a review of each exemption in the Annex at least every four years or four years after an item is added to the list with the aim of considering deletion of materials and components of electrical and electronic equipment from the Annex if their elimination or substitution via design changes or materials and components which do not require any of the materials or substances referred to in Article 4(1) is technically or scientifically possible, provided that the negative environmental, health and/or consumer safety impacts caused by substitution do not outweigh the possible environmental, health and/or consumer safety benefits thereof.

2. Before the Annex is amended pursuant to paragraph 1, the Commission shall *inter alia* consult producers of electrical and electronic equipment, recyclers, treatment operators, environmental organisations and employee and consumer associations. Comments shall be forwarded to the Committee referred to in Article 7(1). The Commission shall provide an account of the information it receives.

Article 6

Review

Before 13 February 2005, the Commission shall review the measures provided for in this Directive to take into account, as necessary, new scientific evidence.

In particular the Commission shall, by that date, present proposals for including in the scope of this Directive equipment which falls under categories 8 and 9 set out in Annex IA to Directive 2002/96/EC (WEEE).

The Commission shall also study the need to adapt the list of substances of Article 4(1), on the basis of scientific facts and taking the precautionary principle into account, and present proposals to the European Parliament and Council for such adaptations, if appropriate.

Particular attention shall be paid during the review to the impact on the environment and on human health of other hazardous substances and materials used in electrical and electronic equipment. The Commission shall examine the feasibility of replacing such substances and materials and shall present proposals to the European Parliament and to the Council in order to extend the scope of Article 4, as appropriate.

Article 7

Committee

1. The Commission shall be assisted by the Committee set up by Article 18 of Council Directive 75/442/EEC [1].

2. Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to Article 8 thereof.

The period provided for in Article 5(6) of Decision 1999/468/EC shall be set at three months.

3. The Committee shall adopt its rules of procedure.

[1] OJ L 194, 25.7.1975, p. 39.

Article 8

Penalties

Member States shall determine penalties applicable to breaches of the national provisions adopted pursuant to this Directive. The penalties thus provided for shall be effective, proportionate and dissuasive.

Article 9

Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 13 August 2004. They shall immediately inform the Commission thereof.

When Member States adopt those measures, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. The methods of making such a reference shall be laid down by the Member States.

2. Member States shall communicate to the Commission the text of all laws, regulations and administrative provisions adopted in the field covered by this Directive.

Article 10

Entry into force

This Directive shall enter into force on the day of its publication in the *Official Journal of the European Union*.

Article 11

Addressees

This Directive is addressed to the Member States.

Done at Brussels, 27 January 2003.

For the European Parliament	*For the Council*
The President	*The President*
P. COX	G. DRYS

ANNEX

Applications of lead, mercury, cadmium and hexavalent chromium, which are exempted from the requirements of Article 4(1)

1. Mercury in compact fluorescent lamps not exceeding 5 mg per lamp.
2. Mercury in straight fluorescent lamps for general purposes not exceeding:
   - halophosphate 10 mg
   - triphosphate with normal lifetime 5 mg
   - triphosphate with long lifetime 8 mg.
3. Mercury in straight fluorescent lamps for special purposes.
4. Mercury in other lamps not specifically mentioned in this Annex.
5. Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.
6. Lead as an alloying element in steel containing up to 0,35 % lead by weight, aluminium containing up to 0,4 % lead by weight and as a copper alloy containing up to 4 % lead by weight.
7. — Lead in high melting temperature type solders (i.e. tin-lead solder alloys containing more than 85 % lead),
   - lead in solders for servers, storage and storage array systems (exemption granted until 2010),
   - lead in solders for network infrastructure equipment for switching, signalling, transmission as well as network management for telecommunication,
   - lead in electronic ceramic parts (e.g. piezoelectronic devices).
8. Cadmium plating except for applications banned under Directive 91/338/EEC [1] amending Directive 76/769/EEC [2] relating to restrictions on the marketing and use of certain dangerous substances and preparations.
9. Hexavalent chromium as an anti-corrosion of the carbon steel cooling system in absorption refrigerators.
10. Within the procedure referred to in Article 7(2), the Commission shall evaluate the applications for:
    - Deca BDE,
    - mercury in straight fluorescent lamps for special purposes,
    - lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission as well as network management for telecommunications (with a view to setting a specific time limit for this exemption), and
    - light bulbs,

    as a matter of priority in order to establish as soon as possible whether these items are to be amended accordingly.

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[1] OJ L 186, 12.7.1991, p. 59.
[2] OJ L 262, 27.9.1976, p. 201.

COMMISSION DECISION

of 18 August 2005

amending Directive 2002/95/EC of the European Parliament and of the Council for the purpose of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment

(notified under document number C(2005) 3143)

(2005/618/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment [1], and in particular Article 5(1)(a) thereof,

Whereas:

(1) Since it is evident that a total avoidance of heavy metals and brominated flame retardants is in some instances impossible to achieve, certain concentration values for lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE) in materials should be tolerated.

(2) The proposed maximum concentration values are based on existing Community chemicals legislation and are considered the most appropriate to ensure a high level of protection.

(3) Pursuant to Article 5(2) the Commission has consulted producers of electric and electronic equipment, recyclers, treatment operators, environmental organisations and employee and consumer associations and forwarded the comments to the Committee established by Article 18 of Council Directive 75/442/EEC of 15 July 1975 on waste [2].

(4) The Commission submitted the measures provided for in this Decision for vote in the Committee established under Article 18 of Directive 75/442/EEC on waste on 10 June 2004. There was no qualified majority in favour of these measures. Thus, in accordance with the procedure set out in Article 18 of Directive 75/442/EEC, a proposal for a Council Decision was submitted to Council on 23 September 2004. Since on the expiry date of the period laid down in Article 7(2) of Directive 2002/95/EC the Council had neither adopted the proposed measures nor indicated its opposition to them in accordance with Article 5(6) of Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission [3] the measures should be adopted by the Commission,

HAS ADOPTED THIS DECISION:

Article 1

In the Annex to Directive 2002/95/EC the following note is added:

'For the purposes of Article 5(1)(a), a maximum concentration value of 0,1 % by weight in homogeneous materials for lead, mercury, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) and of 0,01 % by weight in homogeneous materials for cadmium shall be tolerated.'

Article 2

This Decision shall apply from 1 July 2006.

Article 3

This Decision is addressed to the Member States.

Done at Brussels, 18 August 2005.

For the Commission
Stavros DIMAS
Member of the Commission

[1] OJ L 37, 13.2.2003, p. 19.
[2] OJ L 194, 25.7.1975, p. 39. Directive as last amended by Regulation (EC) No 1882/2003 of the European Parliament and of the Council (OJ L 284, 31.10.2003, p. 1).
[3] OJ L 184, 17.7.1999, p. 23.

COMMISSION DECISION

of 13 October 2005

amending for the purposes of adapting to the technical progress the Annex to Directive 2002/95/EC of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment

(notified under document number C(2005) 3754)

(Text with EEA relevance)

(2005/717/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment [1], and in particular Article 5(1)(b) thereof,

Whereas:

(1) Under Directive 2002/95/EC the Commission is required to evaluate certain hazardous substances prohibited pursuant to Article 4(1) of that Directive.

(2) Certain materials and components containing lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE) should be exempt from the prohibition, since the elimination or substitution of these hazardous substances in those specific materials and components is still impracticable.

(3) Since the risk assessment of DecaBDE, under Council Regulation (EEC) No 793/93 of 23 March 1993 on the evaluation and control of the risks of existing substances [2], has concluded that there is at present no need for measures to reduce the risks for consumers beyond those which are being applied already, but additional studies are required under the risk assessment, DecaBDE can be exempted until further notice from the requirements of Article 4(1) of Directive 2002/95/EC. Should new evidence lead to a different conclusion of the risk assessment, this decision would be re-examined and amended, if appropriate. In parallel industry is implementing a voluntary emissions reduction programme.

(4) Exemptions from the prohibition for certain specific materials or components should be limited in their scope, in order to achieve a gradual phase-out of hazardous substances in electrical and electronic equipment, given that the use of those substances in such applications will become avoidable.

(5) Pursuant to Article 5(1)(c) of Directive 2002/95/EC, each exemption listed in the Annex to that Directive must be subject to a review at least every four years or four years after an item is added to the list with the aim of considering deletion of materials and components of electrical and electronic equipment if their elimination or substitution via design changes or materials and components which do not require any of the materials or substances refered to in Article 4(1) is technically or scientifically possible, provided that the negative environmental, health and/or consumer safety impacts caused by substitution do not outweigh the possible environmental, health and/or consumer safety benefits thereof. Therefore, the review of each exemption provided for in this Decision will be done before 2010.

(6) Pursuant to Article 5(2) of Directive 2002/95/EC, the Commission has consulted producers of electrical and electronic equipment, recyclers, treatment operators, environmental organisations and employee and consumers associations and forwarded the comments to the Committee established by Article 18 of Council Directive 75/442/EEC of 15 July 1975 on waste [3] (the Committee).

(7) The Commission submitted the measures provided for in this Decision for vote in the Committee established under Article 18 of Directive 75/442/EEC on waste on 19 April 2005. There was no qualified majority in favour of these measures. Thus, in accordance with the procedure set out in Article 18 of Directive 75/442/EEC, a Proposal for a Council Decision was submitted to Council on 6 June 2005. Since on the expiry date of the period laid down in Article 7(2) of Directive 2002/95/EC the Council had neither adopted the proposed measures nor indicated its opposition to them in accordance with Article 5(6) of Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission [4] the measures should be adopted by the Commission,

[1] OJ L 37, 13.2.2003, p. 19.
[2] OJ L 84, 5.4.1993, p. 1. Regulation as amended by Regulation (EC) No 1882/2003 of the European Parliament and of the Council (OJ L 284, 31.10.2003, p. 1).
[3] OJ L 194, 25.7.1975, p. 39. Directive as last amended by Regulation (EC) No 1882/2003.
[4] OJ L 184, 17.7.1999, p. 23.

HAS ADOPTED THIS DECISION:

Sole Article

The Annex to Directive 2002/95/EC is amended as set out in the Annex to this Decision.

This Decision is addressed to the Member States.

Done at Brussels, 13 October 2005.

For the Commission
Stavros DIMAS
Member of the Commission

ANNEX

The Annex to Directive 2002/95/EC is amended as follows:

1. The title is replaced by the following:

   'Applications of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE) which are exempted from the requirements of Article 4(1)';

2. The following point 9a is added:

   '9a. DecaBDE in polymeric applications;'

3. The following point 9b is added:

   '9b. Lead in lead-bronze bearing shells and bushes'.

COMMISSION DECISION

of 21 October 2005

amending for the purposes of adapting to technical progress the Annex to Directive 2002/95/EC of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment

(notified under document number C(2005) 4054)

(Text with EEA relevance)

(2005/747/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment [1], and in particular Article 5(1)(b) thereof,

Whereas:

(1) In accordance with Directive 2002/95/EC the Commission is required to evaluate certain hazardous substances prohibited pursuant to Article 4(1) of that Directive.

(2) Certain materials and components containing lead and cadmium should be exempt (or continue to be exempt) from the prohibition, since the use of these hazardous substances in those specific materials and components is still unavoidable.

(3) Some exemptions from the prohibition for certain specific materials or components should be limited in their scope, in order to achieve a gradual phase-out of hazardous substances in electrical and electronic equipment, given that the use of those substances in such applications will become avoidable.

(4) Pursuant to Article 5(1)(c) of Directive 2002/95/EC each exemption listed in the Annex must be subjected to a review, at least every four years or four years after an item is added to the list, with the aim of considering deletion of materials and components of electrical and electronic equipment if their elimination or substitution via design changes or materials and components which do not require any of the materials or substances referred to in Article 4(1) are technically or scientifically possible, provided that the negative environmental, health and/or consumer safety impacts caused by substitution do not outweigh the possible environmental, health and/or consumer safety benefits thereof.

(5) Directive 2002/95/EC should therefore be amended accordingly.

(6) Pursuant to Article 5(2) of Directive 2002/95/EC the Commission has consulted producers of electrical and electronic equipment, recyclers, treatment operators, environmental organisations and employee and consumers associations and forwarded the comments to the Committee established by Article 18 of Council Directive 75/442/EEC of 15 July 1975 on waste [2], hereinafter 'the Committee'.

(7) The measures provided for in this Decision are in accordance with the opinion of the Committee,

HAS ADOPTED THIS DECISION:

Article 1

The Annex to Directive 2002/95/EC is amended as set out in the Annex to this Decision.

Article 2

This Decision is addressed to the Member States.

Done at Brussels, 21 October 2005.

For the Commission

Stavros DIMAS

Member of the Commission

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[1] OJ L 37, 13.2.2003, p. 19. Directive as amended by Commission Decision 2005/717/EC (OJ L 271, 15.10.2005, p. 48).

[2] OJ L 194, 25.7.1975, p. 39. Directive as last amended by Regulation (EC) No 1882/2003 of the European Parliament and of the Council (OJ L 284, 31.10.2003, p. 1).

ANNEX

Annex to Directive 2002/95/EC is amended as follows:

1. point 7 is replaced by the following:

'7. — Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead),

— lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission as well as network management for telecommunications,

— lead in electronic ceramic parts (e.g. piezoelectronic devices).';

2. point 8 is replaced by the following:

'8. Cadmium and its compounds in electrical contacts and cadmium plating except for applications banned under Directive 91/338/EEC (*) amending Directive 76/769/EEC (**) relating to restrictions on the marketing and use of certain dangerous substances and preparations.

(*) OJ L 186, 12.7.1991, p. 59.
(**) OJ L 262, 27.9.1976, p. 201.';

3. the following points are added:

'11. Lead used in compliant pin connector systems.

12. Lead as a coating material for the thermal conduction module c-ring.

13. Lead and cadmium in optical and filter glass.

14. Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80 % and less than 85 % by weight.

15. Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.'

COMMISSION

COMMISSION DECISION

of 21 April 2006

amending, for the purposes of adapting to the technical progress, the Annex to Directive 2002/95/EC of the European Parliament and of the Council as regards exemptions for applications of lead

(notified under document number C(2006) 1622)

(Text with EEA relevance)

(2006/310/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment [1], and in particular Article 5(1)(b) thereof,

Whereas:

(1) Under Directive 2002/95/EC the Commission is required to evaluate certain hazardous substances prohibited pursuant to Article 4(1) of that Directive.

(2) Certain materials and components containing lead should be exempted from the prohibition, since the use of these hazardous substances in those specific materials and components is still unavoidable.

(3) Certain materials and components containing lead should be exempted from the prohibition, since the negative environmental, health and/or consumer safety impacts caused by substitution are likely to outweigh the environmental, health and/or consumer safety benefits thereof.

(4) Some exemptions from the prohibition for certain specific materials or components should be limited in their scope, in order to achieve a gradual phase-out of hazardous substances in electrical and electronic equipment, given that the use of those substances in such applications will become avoidable.

(5) Pursuant to Article 5(1)(c) of Directive 2002/95/EC each exemption listed in the Annex must be subject to a review at least every four years or four years after an item is added to the list with the aim of considering deletion of materials and components of electrical and electronic equipment if their elimination or substitution via design changes or materials and components which do not require any of the materials or substances referred to in Article 4(1) of that Directive is technically or scientifically possible, provided that the negative environmental, health and/or consumer safety impacts caused by substitution do not outweigh the possible environmental, health and/or consumer safety benefits thereof.

(6) Directive 2002/95/EC should therefore be amended accordingly.

(7) Pursuant to Article 5(2) of Directive 2002/95/EC the Commission has consulted producers of electrical and electronic equipment, recyclers, treatment operators, environmental organisations and employee and consumers associations.

(8) The measures provided for in this Decision are in accordance with the opinion of the Committee established by Article 18 of Council Directive 75/442/EEC [2],

HAS ADOPTED THIS DECISION:

Article 1

The Annex to Directive 2002/95/EC is amended as set out in the Annex to this Decision.

[1] OJ L 37, 13.2.2003, p. 19. Directive as last amended by Commission Decision 2005/747/EC (OJ L 280, 25.10.2005, p. 18).

[2] OJ L 194, 25.7.1975, p. 39. Directive as last amended by Regulation (EC) No 1882/2003 of the European Parliament and of the Council (OJ L 284, 31.10.2003, p. 1).

Article 2

This Decision is addressed to the Member States.

Done at Brussels, 21 April 2006.

For the Commission
Stavros DIMAS
Member of the Commission

ANNEX

In the Annex to Directive 2002/95/EC the following points 16 to 20 are added:

'16. Lead in linear incandescent lamps with silicate coated tubes.

17. Lead halide as radiant agent in High Intensity Discharge (HID) lamps used for professional reprography applications.

18. Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP ($BaSi_2O_5$:Pb) as well as when used as speciality lamps for diazo-printing reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ($(Sr,Ba)_2MgSi_2O_7$:Pb).

19. Lead with PbBiSn-Hg and PbInSn-Hg in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact Energy Saving Lamps (ESL).

20. Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCD).'

COMMISSION DECISION

of 12 October 2006

amending, for the purposes of adapting to technical progress, the Annex to Directive 2002/95/EC of the European Parliament and of the Council as regards exemptions for applications of lead and cadmium

(notified under document number C(2006) 4790)

(Text with EEA relevance)

(2006/691/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment [1], and in particular Article 5(1)(b) thereof,

Whereas:

(1) Directive 2002/95/EC requires the Commission to evaluate certain hazardous substances prohibited pursuant to Article 4(1) of that Directive.

(2) Certain materials and components containing lead and cadmium should be exempted from the prohibition, since the use of these hazardous substances in those specific materials and components is still unavoidable, or because the negative environmental, health or consumer safety impacts caused by substitution are likely to outweigh the environmental, health or consumer safety benefits thereof. The exemptions listed in the annex to this decision are granted on the basis of the results of a review process carried out by technical experts taking into account available evidence from studies, stakeholders and other scientific/technical sources. This review concluded that the elimination or substitution of the substances is still technically or scientifically impracticable.

(3) Some exemptions from the prohibition for certain specific materials or components should be limited in their scope, in order to achieve a gradual phase-out of hazardous substances in electrical and electronic equipment, given that the use of those substances in such applications will become avoidable.

(4) Pursuant to Article 5(1)(c) of Directive 2002/95/EC each exemption listed in the Annex must be subject to a review at least every four years or four years after an item is added to the list.

(5) Directive 2002/95/EC should therefore be amended accordingly.

(6) Pursuant to Article 5(2) of Directive 2002/95/EC, the Commission has consulted the relevant parties.

(7) The measures provided for in this Decision are in accordance with the opinion of the Committee established by Article 18 of Directive 2006/12/EC of the European Parliament and of the Council [2],

HAS ADOPTED THIS DECISION:

Article 1

The Annex to Directive 2002/95/EC is amended as set out in the Annex to this Decision.

Article 2

This Decision is addressed to the Member States.

Done at Brussels, 12 October 2006.

For the Commission
Stavros DIMAS
Member of the Commission

[1] OJ L 37, 13.2.2003, p. 19. Directive as last amended by Commission Decision 2006/310/EC (OJ L 115, 28.4.2006, p. 38).

[2] OJ L 114, 27.4.2006, p. 9.

ANNEX

In the Annex to Directive 2002/95/EC the following points 21 to 27 are added:

'21. Lead and cadmium in printing inks for the application of enamels on borosilicate glass.

22. Lead as impurity in RIG (rare earth iron garnet) Faraday rotators used for fibre optic communications systems.

23. Lead in finishes of fine pitch components other than connectors with a pitch of 0.65 mm or less with NiFe lead frames and lead in finishes of fine pitch components other than connectors with a pitch of 0.65 mm or less with copper lead frames.

24. Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors.

25. Lead oxide in plasma display panels (PDP) and surface conduction electron emitter displays (SED) used in structural elements; notably in the front and rear glass dielectric layer, the bus electrode, the black stripe, the address electrode, the barrier ribs, the seal frit and frit ring as well as in print pastes.

26. Lead oxide in the glass envelope of Black Light Blue (BLB) lamps.

27. Lead alloys as solder for transducers used in high-powered (designated to operate for several hours at acoustic power levels of 125 dB SPL and above) loudspeakers.'

COMMISSION DECISION

of 12 October 2006

amending, for the purposes of adapting to technical progress, the Annex to Directive 2002/95/EC of the European Parliament and of the Council as regards exemptions for applications of hexavalent chromium

(notified under document number C(2006) 4791)

(Text with EEA relevance)

(2006/692/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment [1], and in particular Article 5(1)(b) thereof,

Whereas:

(1) Directive 2002/95/EC requires the Commission to evaluate certain hazardous substances prohibited pursuant to Article 4(1) of that Directive.

(2) Certain materials and components containing hexavalent chromium should be exempted from the prohibition, since the use of this hazardous substance in those specific materials and components is still unavoidable, or because the negative environmental, health or consumer safety impacts caused by substitution are likely to outweigh the environmental, health or consumer safety benefits thereof. The exemption is granted on the basis of the results of a review process carried out by technical experts taking into account available evidence from studies, stakeholders and other scientific/technical sources. This review concluded that the elimination or substitution of the substance is still technically or scientifically impracticable until 1 July 2007. A similar exemption is provided in Directive 2000/53/EC on End of Life Vehicles.

(3) Some exemptions from the prohibition for certain specific materials or components should be limited in their scope, in order to achieve a gradual phase-out of hazardous substances in electrical and electronic equipment, given that the use of those substances in such applications will become avoidable.

(4) Pursuant to Article 5(1)(c) of Directive 2002/95/EC each exemption listed in the Annex must be subject to a review at least every four years or four years after an item is added to the list.

(5) Directive 2002/95/EC should therefore be amended accordingly.

(6) Pursuant to Article 5(2) of Directive 2002/95/EC, the Commission has consulted the relevant parties.

(7) The measures provided for in this Decision are in accordance with the opinion of the Committee established by Article 18 of Directive 2006/12/EC of the European Parliament and of the Council [2],

HAS ADOPTED THIS DECISION:

Article 1

In the Annex to Directive 2002/95/EC the following point 28 is added:

'28. Hexavalent chromium in corrosion preventive coatings of unpainted metal sheetings and fasteners used for corrosion protection and Electromagnetic Interference Shielding in equipment falling under category three of Directive 2002/96/EC (IT and telecommunications equipment). Exemption granted until 1 July 2007.'

[1] OJ L 37, 13.2.2003, p. 19. Directive as last amended by Commission Decision 2006/310/EC (OJ L 115, 28.4.2006, p. 38).

[2] OJ L 114, 27.4.2006, p. 9.

Article 2

This Decision is addressed to the Member States.

Done at Brussels, 12 October 2006.

For the Commission
Stavros DIMAS
Member of the Commission

COMMISSION DECISION

of 12 October 2006

amending, for the purposes of adapting to technical progress, the Annex to Directive 2002/95/EC of the European Parliament and of the Council as regards exemptions for applications of lead in crystal glass

(notified under document number C(2006) 4789)

(Text with EEA relevance)

(2006/690/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment [1], and in particular Article 5(1)(b) thereof,

Whereas:

(1) Directive 2002/95/EC requires the Commission to evaluate certain hazardous substances prohibited pursuant to Article 4(1) of that Directive.

(2) Crystal glass has been progressively used for decorative purposes on electrical and electronic equipment. Since Council Directive 69/493/EEC of 15 December 1969 on the approximation of the laws of the Member States relating to crystal glass [2] prescribes the amount of lead to be present in crystal glass and the substitution of lead in crystal glass is therefore technically impracticable, the use of this hazardous substance in specific materials and components covered by that Directive is unavoidable. Those materials and components should be therefore exempted from the prohibition.

(3) Some exemptions from the prohibition for certain specific materials or components should be limited in their scope, in order to achieve a gradual phase-out of hazardous substances in electrical and electronic equipment, given that the use of those substances in such applications will become avoidable.

(4) Pursuant to Article 5(1)(c) of Directive 2002/95/EC each exemption listed in the Annex must be subject to a review at least every four years or four years after an item is added to the list.

(5) Directive 2002/95/EC should therefore be amended accordingly.

(6) Pursuant to Article 5(2) of Directive 2002/95/EC, the Commission has consulted the relevant parties.

(7) The measures provided for in this Decision are in accordance with the opinion of the Committee established by Article 18 of Directive 2006/12/EC of the European Parliament and of the Council [3],

HAS ADOPTED THIS DECISION:

Article 1

In the Annex to Directive 2002/95/EC the following point 29 is added:

'29. Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC (*).

(*) OJ L 326, 29.12.1969, p. 36. Directive as last amended by 2003 Act of Accession.'

Article 2

This Decision is addressed to the Member States.

Done at Brussels, 12 October 2006.

For the Commission
Stavros DIMAS
Member of the Commission

[1] OJ L 37, 13.2.2003, p. 19. Directive as last amended by Commission Decision 2006/310/EC (OJ L 115, 28.4.2006, p. 38).
[2] OJ L 326, 29.12.1969, p. 36. Directive as last amended by 2003 Act of Accession.
[3] OJ L 114, 27.4.2006, p. 9.

II

(Acts adopted under the EC Treaty/Euratom Treaty whose publication is not obligatory)

DECISIONS

COMMISSION

COMMISSION DECISION

of 24 January 2008

amending, for the purposes of adapting to technical progress, the Annex to Directive 2002/95/EC of the European Parliament and of the Council as regards exemptions for applications of lead and cadmium

(notified under document number C(2008) 268)

(Text with EEA relevance)

(2008/385/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment [1], and in particular Article 5(1)(b) thereof,

Whereas:

(1) Directive 2002/95/EC requires the Commission to evaluate certain hazardous substances prohibited pursuant to Article 4(1) of that Directive.

(2) Certain materials and components containing lead and cadmium should be exempted from the prohibition, since the use of these hazardous substances in those specific materials and components is still unavoidable. The substitution for cadmium alloys in transducers is not yet feasible. Mercury-free flat panel lamps without lead are not available yet and no feasible substitutes for lead oxide are available for argon and krypton laser tubes.

(3) Directive 2002/95/EC should therefore be amended accordingly.

(4) Pursuant to Article 5(2) of Directive 2002/95/EC, the Commission has consulted the relevant parties.

(5) The measures provided for in this Decision are in accordance with the opinion of the Committee established by Article 18 of Directive 2006/12/EC of the European Parliament and of the Council [2],

HAS ADOPTED THIS DECISION:

Article 1

The Annex to Directive 2002/95/EC is amended as set out in the Annex to this Decision.

[1] OJ L 37, 13.2.2003, p. 19. Directive as last amended by Commission Decision 2006/692/EC (OJ L 283, 14.10.2006, p. 50).

[2] OJ L 114, 27.4.2006, p. 9.

Article 2

This Decision is addressed to the Member States.

Done at Brussels, 24 January 2008.

For the Commission
Stavros DIMAS
Member of the Commission

ANNEX

In the Annex to Directive 2002/95/EC, the following points 30, 31 and 32 are added:

'30. Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100 dB (A) and more.

31. Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, design or industrial lighting).

32. Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes.'

APPENDIX B

The annex of Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment, listing products or materials for which the general content limits for the specified substances do not apply, is reproduced below. Exemptions concerning the use of lead are highlighted in **bold**. The staff recommends that if the Commission adopts the EU RoHS exemptions, the crystal glass exemption should not be extended to children's electronic devices subject to the CPSIA lead limits. The crystal glass exemption, exemption number 29 in the Annex, is indicated by ~~strikethrough~~.

Directive 2002/95/EC Annex

Applications of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE) which are exempted from the requirements of Article 4(1)

1. Mercury in compact fluorescent lamps not exceeding 5 mg per lamp.

2. Mercury in straight fluorescent lamps for general purposes not exceeding:
   — halophosphate 10 mg
   — triphosphate with normal lifetime 5 mg
   — triphosphate with long lifetime 8 mg.

3. Mercury in straight fluorescent lamps for special purposes.

4. Mercury in other lamps not specifically mentioned in this Annex.

5. **Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.**

6. **Lead as an alloying element in steel containing up to 0.35 % lead by weight, aluminium containing up to 0.4 % lead by weight and as a copper alloy containing up to 4 % lead by weight.**

7. **— Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead),**
   — lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission as well as network management for telecommunications,
   — lead in electronic ceramic parts (e.g. piezoelectronic devices).

8. Cadmium and its compounds in electrical contacts and cadmium plating except for applications banned under Directive 91/338/EEC (*) amending Directive 76/769/EEC (**)

relating to restrictions on the marketing and use of certain dangerous substances and preparations.

(*) OJ L 186, 12.7.1991, p. 59.
(**) OJ L 262, 27.9.1976, p. 201

9. Hexavalent chromium as an anti-corrosion of the carbon steel cooling system in absorption refrigerators.

9a. DecaBDE in polymeric applications.

9b. Lead in lead-bronze bearing shells and bushes.

10. **Within the procedure referred to in Article 7(2), the Commission shall evaluate the applications for:**
— Deca BDE,
— mercury in straight fluorescent lamps for special purposes,
— lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission as well as network management for telecommunications (with a view to setting a specific time limit for this exemption), and
— light bulbs, as a matter of priority in order to establish as soon as possible whether these items are to be amended accordingly.

11. Lead used in compliant pin connector systems.

12. Lead as a coating material for the thermal conduction module c-ring.

13. Lead and cadmium in optical and filter glass.

14. Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80 % and less than 85 % by weight.

15. Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

16. Lead in linear incandescent lamps with silicate coated tubes.

17. Lead halide as radiant agent in High Intensity Discharge (HID) lamps used for professional reprography applications.

18. Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP (BaSi2O5:Pb) as well as when used as speciality lamps for diazo-printing reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ((Sr,Ba)2MgSi2O7:Pb).

19. **Lead with PbBiSn-Hg and PbInSn-Hg in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact Energy Saving Lamps (ESL).**

20. **Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCD).**

21. **Lead and cadmium in printing inks for the application of enamels on borosilicate glass.**

22. **Lead as impurity in RIG (rare earth iron garnet) Faraday rotators used for fibre optic communications systems.**

23. **Lead in finishes of fine pitch components other than connectors with a pitch of 0.65 mm or less with NiFe lead frames and lead in finishes of fine pitch components other than connectors with a pitch of 0.65 mm or less with copper lead frames.**

24. **Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors.**

25. **Lead oxide in plasma display panels (PDP) and surface conduction electron emitter displays (SED) used in structural elements; notably in the front and rear glass dielectric layer, the bus electrode, the black stripe, the address electrode, the barrier ribs, the seal frit and frit ring as well as in print pastes.**

26. **Lead oxide in the glass envelope of Black Light Blue (BLB) lamps.**

27. **Lead alloys as solder for transducers used in high-powered (designated to operate for several hours at acoustic power levels of 125 dB SPL and above) loudspeakers.**

28. Hexavalent chromium in corrosion preventive coatings of unpainted metal sheetings and fasteners used for corrosion protection and Electromagnetic Interference Shielding in equipment falling under category three of Directive 2002/96/EC (IT and telecommunications equipment). Exemption granted until 1 July 2007

~~**29. Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC (*).**~~

~~**(*) OJ L 326, 29.12.1969, p. 36. Directive as last amended by 2003 Act of Accession.**~~

30. Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100 dB (A) and more.

31. **Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, design or industrial lighting).**

32. **Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes.**

UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

Memorandum

Date: DEC 23 2008

TO : Mary Ann Danello, Ph.D., Associate Executive Director, Directorate for Health Sciences

THROUGH: Lori E. Saltzman, M.S., Director, Division of Health Sciences, Directorate for Health Sciences

FROM : Kristina M. Hatlelid, Ph.D., M.P.H., Toxicologist, Directorate for Health Sciences
Joanna M. Matheson, Ph.D., Toxicologist, Directorate for Health Sciences

SUBJECT : Response to Public Comments*

Introduction

The Consumer Product Safety Improvement Act of 2008 (CPSIA) establishes limits for lead content of children's products and provides for certain exclusions from compliance with the specified lead limits.

On September 26, 2008, the staff posted on the CPSC website a request for public comments on CPSIA section 101(b)(2), Exception for Inaccessible Component Parts, and section 101(b)(4), Certain Electronic Devices. In particular, the staff requested comments and information on lead-containing component parts of children's products; whether any children's product contains lead-containing component parts that are inaccessible, and the reasons why such component parts are considered inaccessible; whether test methods or processes exist that are used or may be used to assess the accessibility by children of component parts of products; whether it is technologically feasible to achieve the lead limits in all parts of children's electronic devices; and whether children's electronics were or could be compliant with other regulations that restrict lead content of products. The comment period closed October 31, 2008.

Twenty-nine comments were received through November 14, 2008. All of the comments received were from firms, representatives of firms, industry associations, or industry consultants. This memorandum provides a summary of the submissions and the staff's responses to them. Similar or related comments are addressed together under a single issue category. Comments that were not related to the requested information are not addressed here. The index of the public comments is in Appendix A.

I. Comments on CPSIA section 101(b)(2), Exception for Inaccessible Component Parts

Seventeen comments addressed issues related to accessibility or inaccessibility of lead-containing component parts of children's products, including methods for evaluating accessibility.

*These comments are those of the CPSC staff, have not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.

Comment: Accessibility or inaccessibility of lead-containing components.

Three commenters (11, 23, 27) discussed fully enclosed parts that should be deemed inaccessible. Four commenters (12, 13, 15, 24) asserted that accessibility should refer to exposure to lead, *e.g.*, leaching of lead from the product, not physical accessibility. Two comments (18, 25) suggested that only materials that physically degrade or break down should be considered as resulting in accessibility. Fourteen (1, 3, 7, 13, 14, 15, 18, 19, 20, 22, 23, 24, 25, 26) stated that accessible parts should be only those that are ingestible, and refer to testing for small parts. Seven comments (1, 7, 14, 15, 19, 21, 25) stated that the use of tools should not be considered in evaluating accessibility.

CPSC Staff Response:

The CPSIA specifies that accessibility is defined as physical contact with lead-containing component parts. The staff would consider that an accessible component part of a children's product is one that a child may touch, and an inaccessible component part is one that is located where a child cannot touch it. Thus, the staff agrees that enclosed component parts of a product could be considered inaccessible, and has recommended means to test accessibility of potentially lead-containing component parts through application of accessibility probes and use and abuse testing.

Further, the staff would consider an accessible component part as one that a child may simply touch or place in the mouth, not just a component part that a child might ingest, since exposure to lead may occur during direct mouthing of an object or mouthing of fingers/hands. In addition, a definition of accessibility that refers solely to exposure to lead, *e.g.*, resulting from leaching of lead from a part, or degradation of a material, is not consistent with the definition of accessibility provided in the CPSIA.

The staff agrees that intentional disassembly of products by children through the use of tools should not be considered as making otherwise inaccessible parts accessible in the evaluation of products for accessibility of lead-containing components.

Comment: Accessibility probes.

Several commenters (7, 11, 13, 14, 15, 24) suggested that the accessibility probes for evaluating accessibility of sharp points or sharp metal or glass edges could be used to evaluate accessibility of lead-containing components.

CPSC Staff Response:

The staff agrees that the accessibility probes could be used to determine whether a lead-containing component part of a product is accessible to a child.

Comment: Use and abuse tests.

Three commenters (3, 13, 15) suggested that use and abuse tests could be used to assess whether a product contains ingestible small parts.

CPSC Staff Response:

The staff agrees that appropriate use and abuse tests could be part of an evaluation of whether certain component parts of a product become accessible to a child during normal and reasonably foreseeable use and abuse of the product by a child. However, the staff does not agree that accessibility refers only to ingestion of lead-containing components. Rather, the definition of

accessibility provided in the CPSIA is physical contact with lead-containing component parts, and the staff considers this to include touching, placing in the mouth, or ingestion of a part of a product.

II. Comments on CPSIA section 101(b)(4), Certain Electronic Devices

Fourteen comments addressed the use of lead in children's electronic devices.

Comment: Technological feasibility of compliance of electronic devices.

Eight comments (7,12,13,14,19,21,22,29) addressed the issue of the technological feasibility of certain electronic devices meeting the CPSIA lead limits, indicating that for certain materials or parts, it would be difficult to achieve the specified maximum lead limits. One commenter (19) interpreted technological feasibility as referring to cost-benefit analysis.

CPSC Staff Response:

The CPSIA provides that the Commission shall issue regulations concerning certain electronic devices to eliminate or minimize the potential for exposure to and accessibility of lead in such electronic devices if it is not technologically feasible to comply with the lead limits set by the Act. The staff recommendations concerning certain electronic devices are based in part on the information provided by these commenters, along with other information available to the staff, and acknowledge the difficulty in attaining compliance with the CPSIA for certain materials or products. The staff notes that technological feasibility as defined in the CPSIA means commercial availability of materials or parts, or the possible future availability of materials or parts. It does not refer to economic considerations, such as cost-benefit analysis.

Comment: Inaccessibility of electronic device components.

Six commenters (1,7,13,14,15,19) addressed inaccessibility of lead-containing components of electronic devices. Comments discussed electronic components that are generally enclosed within the product, as well as the idea that only ingestible parts should be considered accessible, and refer to small parts testing.

CPSC Staff Response:

The CPSIA specifies that accessibility is defined as physical contact with lead-containing component parts. The staff would consider that an accessible component part of a children's product is one that a child may touch or place in the mouth, not just a part that a child might ingest. The staff agrees that physical inaccessibility refers generally to a component part that is located inside a product that a child cannot touch. Staff recommends the use of accessibility probes, as well as appropriate use and abuse testing, to evaluate access to lead-containing component parts.

Comments: Compliance with other regulations restricting lead content of electronic devices.

Several commenters (4,7,9,13,14,15,16,19,21,25,29) mentioned other standards that address the use of lead in electronic devices, specifically the European Union Directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment (often abbreviated as EU RoHS). Most commenters stated that EU RoHS requirements would be appropriate for regulating children's electronic products. One commenter (7) cautioned that the

EU RoHS directive does not allow an exemption for inaccessible parts and should not be adopted for use in the U.S.

CPSC Staff Response:

Because the staff recognizes that it is currently not technologically feasible for certain parts of electronic devices to comply with the CPSIA lead limits, and because the exemptions published in the Annex to EU Directive 2002/95/EC (EU RoHS) are based in part on scientific and technological feasibility, the staff is recommending that the Commission adopt, as exclusions to the CPSIA lead limits for electronic devices, those exemptions, provided that the EU RoHS exemption is based on a functional requirement both for the use of a lead-containing component and for the use of lead in such component. Specifically, the staff recommends that if the Commission adopts the EU RoHS exemptions, the crystal glass exemption and any other exemption for uses of lead that are solely decorative or otherwise non-functional should not be extended to children's electronic devices subject to the CPSIA lead limits. The staff has noted that the EU RoHS directive does not allow exemptions based on inaccessibility, since the goal of EU RoHS is to restrict the overall use of lead in products. Because the CPSIA allows exclusion from the lead limits for component parts that meet the CPSIA requirements for inaccessibility, the staff does not recommend that the EU RoHS directive be adopted in its entirety.

The staff notes that the general lead limit in the EU RoHS directive is 0.1 percent (equivalent to 1000 parts per million [ppm]), while the CPSIA limits are 600 ppm as of February 10, 2009, 300 ppm as of August 14, 2009, and 100 ppm as of August 14, 2011, if technologically feasible. The staff is recommending that if the Commission adopts exemptions such as those in the EU RoHS legislation, then electronic devices could comply with the CPSIA by meeting any one of three conditions: 1) by meeting the lead content limits of the CPSIA; 2) by meeting the requirements for inaccessibility of lead-containing component parts; or 3) on the basis of the allowed exemptions.

APPENDIX A

United States
CONSUMER PRODUCT SAFETY COMMISSION
Bethesda, Maryland 20814

MEMORANDUM

TO : OGC

DATE: November 14, 2008

Through: Todd A. Stevenson, Secretary, OS

FROM : Martha A. Kosh, OS

SUBJECT: Section 101 Lead in Children's Products

COMMENT	DATE	SIGNED BY	AFFILIATION
1	09/29/08	Fred Winkler Director Product Safety & Regulatory Compliance	EMC Consumer Product Services 10 Long Hill Ave. Shelton, Ct 06484
2	10/02/08	Harry Lo	Musical Electronics Ltd Harrylo@musical.com.hk
3	10/08/08	Tim Pine Principle	TAP International, LLC 4310 Artesian Cover Denver, NC 28037
4	10/22/08	Troy Brantley Manager of Regulatory Compliance	AlphaGary Corporation 9635 Industrial Dr Pineville, NC 28134
5	10/23/08	Scott	scotth@soimpact.com
6	10/23/08	Stephanie Yeung	Syeung@moret.com
7	10/29/08	Gary Jones Senior VP Product Integrity	Learning Curve Brands Inc GLJONES@rc2corp.com
8	10/30/08	D. Schmeltzer	DSchmeltze@aol.com
9	10/30/08	S. Lester Vice President Intn'l Trade	Retail Industry Leaders 1700 N Moore St. Suite 2250 Arlington, VA 22209

Section 101 Lead In Children Products

10	10/30/08	Ted McGuire President	Thames & Kosmos 207 High Point Ave. Portsmouth, RI 02871
11	10/30/08	Peter Mangione President	Footwear Distributors and Retailers of America ptmangione@fdra.org
12	10/31/08	J. Calderwood	Zuckert Scoutt & Rasenberger, LLP 888 Seventeenth St, NW Washington, DC 20006
13	10/31/08	C. Keithley President	Toy Industry Association 1115 Broadway, Suite 400 New York, NY 10010
14	10/31/08	B. Markwalter Vice President Tech/Standards	Consumer Electronics Assoc. 1250 Eye St, NW - Suite 200 Washington, DC 20005
		Richard Gross Vice President Environment and Sustainability	" " " " " (ITI)
		Fern Abrams Director of Environmental Policy and Government Relations	" " " " " (IPC)
15	10/31/08	Robert Waller President	Juvenile Products Manufacturers Association 15000 Commerce Parkway Suite C Mt. Laurel, NJ 08054
16	10/31/08	K. Segerstad Manager Product Safety & Compliance	IKEA NA Services, LLC 420 Alan Wood Rd. Conshohocken, PA 19428
17	10/31/08	Peter Pettit Chair	Toxics in Packaging Clearinghouse, c/o of Northeast Recycling Council, Inc. 139 Main St, Suite 401 Brattleboro, VT 05301
18	10/31/08	David Murray	Willkie Farr and Gallagher 1875 K St, NW Washington, DC 20006

Section 101 Lead in Children's Products

19	10/31/08	C. McLean Exec. Director	Consumer Electronics Retailers Coalition 317 Massachusetts Ave, NE Suite 200 Washington, DC 20002
20	10/31/08	John Wackman Asst. General Counsel	Polaris Industries, Inc 2100 Highway 55 Medina, MN 55340
21	10/31/08	Riley Russell Sr. Department Assistant	Sony Computer Entertainment America, Inc. 919 E Hillsdale Blvd Foster City, CA 94404
22	10/31/08	M. McNamara	McNamara & L'Heureux, PC 6094 Franconia Rd Suite B Alexandria, VA 22310
23	10/31/08	C. Hudgins Vice President Gov. Relations & Policy	International Sleep Products Association 501 Wythe St. Alexandria, VA 22314
24	10/31/08	Rachel Meyer Principle	Toy Safety & Quality, Inc 1027 Lake St. San Francisco, CA 94118
25	10/31/08	K. Wittenauer (Britax) T. Emerson (Dorel Juvenile Group, Inc L. Harris Evenflo Co., Inc E. Lysaught Kolcraft Enterprises	Mary Weigand Mayer Brown LLp 1909 K St, NW Washington, DC 20006
26	11/03/08	P. Mangione President	Footwear Distributors and Retailers of America 1319 F St, NW - Suite 700 Washington, DC 20004
27	11/05/08	Kevin Burke President/CEO	American Apparel & Footwear Association 1601 North Kent St. Suite 1200 Arlington, VA 22209

Section 101 Lead in Children's Products

28	11/11/08	Carol P Nelson	Independent Safety Consulting 13713 Valley Drive Rockville, MD 20850
29	11/14/08	C. A. McLean Exec Director	Consumer Electronics Retailers Coalition 317 Massachusetts Ave, NE Suite 200 Washington, DC 20002

UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, DC 20207

Memorandum

Date: 23 December 2008

TO : Kristina Hatlelid, Ph.D. , Project Manager, HS

FROM : Gregory B. Rodgers, Ph.D., AED, EC GBR
Robert Franklin, EC RF

SUBJECT : Preliminary regulatory analysis of a rule exempting certain Electronic Devices from section 101(a) of the Consumer Product Safety Improvement Act

On August 14, 2008, Congress enacted the Consumer Product Safety Improvement Act of 2008 (CPSIA), Public Law 110-314. Subsection 101(a) of the Act establishes, as of February 10, 2009, a lead limit of 600 parts per million (ppm) by weight for any part of a children's product. Lead content is thereafter limited to 300 ppm as of August 14, 2009, and 100 ppm as of August 14, 2011, if technologically feasible.

If, however, the Commission determines that it is not technologically feasible for certain electronic devices to comply with the lead limits, section 101(b)(4) of the CPSIA provides that the Commission shall, by regulation:

A) " issue requirements to eliminate or minimize the potential for exposure to and accessibility of lead in such electronic devices, ..."; and
B) "establish a schedule by which such electronic devices shall be in full compliance with the limits in subsection (a), unless the Commission determines that full compliance will not be technologically feasible for such devices within a schedule set by the Commission."

The Commission is now considering issuing a notice of proposed rulemaking (NPR) that will implement section 101(b)(4) by exempting certain electronic devices from the requirements of section 101(a) of the CPSIA.

One category of exempted electronic devices would consist of some lead-containing component parts of electronic devices that are not physically accessible to children. The accessibility of the lead-containing component would be evaluated through application of the accessibility probes described in 16 CFR 1500.48 and 1500.49, before and after use and abuse tests at 16 CFR 1500.50 through 1500.53, as provided in the guidance rule under CPSIA section 101(b)(2).

A second category of exempted electronic devices would include some of the products and materials that are exempted from the Annex to the European Union Directive 2002/95/EC,

on the restriction of the use of certain hazardous substances in electrical and electronic equipment.[1]

The third and final category of exempted electronic devices would include spare parts or other removable components that would be considered inaccessible when the product is assembled in functional form. As above, the accessibility of the lead-containing component would be evaluated through application of the accessibility probes described in 16 CFR 1500.48 and 1500.49, before and after use and abuse tests at 16 CFR 1500.50 through 1500.53, as provided in the guidance rule under CPSIA section 101 (b)(2).

Regulatory Analysis

Because the rule being considered represents an exemption to the requirements of Section 101(a) of the CPSIA, the potential cost of the rule consists of the continued risk associated with the absorption of lead from the children's electronic products that, in the absence of the exemption, would not have been available for use. The potential benefit, on the other hand, consists of the value that consumers attach to having the otherwise barred children's electronic devices available for use. Neither the benefits nor the costs can be quantified with the available information, but are discussed in more detail below.

Benefits

As noted above, the potential benefit of the rule is that some children would have the use of electronic devices designed for children that would, in the absence of the exemptions, be banned from the marketplace. The benefit would be equal to the difference in the value that consumers place on the products that would be banned and the value consumers place on the products that would replace them.

In many cases, the products that would likely replace the banned products would be products that provide essentially the same function as the banned products, but that are intended for general consumer use and not specifically intended for children age 12 years and younger and, therefore, not subject to the lead-content limitations in the CPSIA. For example, although products such as CD and DVD players, computers, electronic games, telephones, and televisions are used by people of all ages, some of these products are designed specifically for children age 12 years and younger. The products intended for children might be decorated with images that appeal to children (e.g., cartoon characters), have fewer or larger buttons that make them easier to operate, and might be built more sturdy so that they can better withstand the more harsh use and abuse that young children are likely to inflict on the products.

[1]European Union Directive 2002/95/EC and amendments to the directive are available at http://eur-lex.europa.eu/en/index.htm. For a discussion of the directive, see "Consumer Product Safety Improvement Act of 2008 (CPSIA) Exclusions from Compliance with Limits for Lead: Inaccessibility and Certain Electronic Devices," memorandum from Kristina M. Hatlelid, Ph.D., M.P.H., to the Commission, December, 2008. Note that not all of the products and materials exempted by the Annex to the European directive will be exempted from the section 101(a) requirements of the CPSIA. For example, objects such as crystal glass, used solely from decorative purposes, would not be exempted.

When using the product designed for general consumer use, children would not lose the full benefit of the use of the products. However, children might find it somewhat more difficult to operate the products intended for general consumer use and such products might not be built to withstand the abuse to which a young child might subject a product. It is also important to note that products that are intended for general consumer use are not subject to the limitations on lead content contained in the CPSIA. Therefore, electronic devices designed for the general consumer might have more components that contain lead, and the lead-containing components might be more accessible after reasonably foreseeable use and abuse of the product by a child. Therefore, a failure to grant the exemptions could potentially result in some children being exposed to more lead.

Other electronic devices intended for children might not have an adult equivalent product. These might include some "educational games" that are intended to help children with learning to count, the alphabet, or the names of animals. Without the exemption, these products might disappear from the market place. As noted above, the benefit of the exemption is the difference between the value provided by the product that is removed from the market and the value provided by the product or activity that replaces the product that is removed. However, in these cases CPSC staff is not certain what would replace these products. Therefore, no additional information on the benefits can be provided at this time.

Costs

As noted above, the cost of the rule is that the exemptions would allow for the continued exposure of some children to the lead contained in the exempted products. As far as we know, no studies have been conducted to evaluate the risk to children of lead absorption from the use of the exempted electronic devices. While the risks cannot be quantified with the available information, Health Sciences staff believes that the likelihood is low that lead exposure from the exempted electronic devices would result in significant lead absorption by children, but it cannot be ruled out.

If a lead-containing component is exempted because it is completely encased in a product, and hence inaccessible to children as provided in the guidance rule under CPSIA section 101(b)(2), the risk of exposure to lead is likely to be low since a child would not be able to touch or mouth the component. The tests for inaccessibility include probe tests, designed to ensure that the component cannot be reached by a child, and use and abuse tests designed to ensure that the lead-containing component remains inaccessible after reasonably foreseeable use and abuse. However, it is possible that some children would be able to open or break the product and gain access to lead-containing components. At the same time, as noted above, an effective ban of certain children's electronic devices that resulted in more children using products intended for general consumer use could potentially lead to an increase in lead exposure.

For lead-containing components that are not fully encased in a product, such as some of the electronic devices exempted from the Annex to the European Directive 2000/95/EC, there would clearly be some risk of exposure. An example of this type of component is the leaded glass in the screen of cathode ray tube products, such as televisions and computer screens. These are not typically components that one would expect a child to ingest, but some mouthing of the products might still occur. The staff is not aware of any epidemiological study that suggests that these components are a significant source of childhood lead poisoning. Furthermore, even if

such products intended for children were not exempted from the rule, some parents would likely substitute, for their children's use, similar products intended for the general consumer population that would not be subject to the CPSIA's lead limits.

For lead-containing replacement components, the risk of lead exposure is probably low once the replacement part is installed in the product since it will be fully encased in the product and will be inaccessible, as provided in the guidance rule under CPSIA section 101(b)(2). The highest risk of lead exposure from these types of products, such as a replacement battery, would occur before the component is installed or after it has been removed from the product at the end of the component's useful life. In the case of products intended for very young children, who are most susceptible to the harmful effects of lead, it is likely that a parent would often replace the component. Older children might replace the components themselves but are more likely to perform the task properly and are less likely to mouth or ingest the parts. Again, it should be noted that the same risk would result from the exposure to lead containing replacement parts if parents substituted, for their children's use, products intended for the general population of consumers that are not subject to the lead limitations of the CPSIA.

Conclusions

In summary, the rule would allow the continued use of some lead-containing electronic devices intended for the use of children, when it is not technologically feasible to produce the devices without lead. Thus, children would be exposed to some amount of lead from these products. However, the exemptions are not expected to increase the lead exposure to children from electronic devices, relative to pre-CPSIA levels. In some cases limitations on the exemptions should help reduce lead exposure. For example, under the exemptions proposed in the rule, the use of lead crystal with children's electronic products for decorative purposes would not be allowed. Additionally, the exemptions could, in some cases, ultimately result in reduced lead exposure for some children if, in the absence of the exemptions, parents would have substituted for their children's use electronic products intended for the general public – products not subject to the lead limitations of the CPSIA.

Impact on Small Businesses

Section 605 of the Regulatory Flexibility Act (RFA) requires the Commission to consider the impact of the rule on small businesses.

The number of small businesses that will be directly affected by the rule is unknown but could be considerable. However, because the proposed rule is designed to exempt certain specified materials from the requirements of section 101(a) of the CPSIA, it will not result in any increase in the costs of production for any firm. Its only effect on businesses, including small businesses, will be to reduce the costs of that would have been associated with testing the exempted materials. Consequently, the Commission could certify that this action will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

Environmental Assessment

The National Environmental Policy Act requires that the Commission consider the impact of its actions on the environment. The CPSC environmental review regulations define rules to provide design or performance requirements for products, or revision, amendment, or revocation of such standards to be "categorical exclusions" for which environmental assessments are not normally required (16 CFR 1021.5). This rule will not result in any additional use of lead over what is occurring at the present time. It will exempt some products intended for children 12 years of age and younger from the more stringent requirements of the CPSIA that become effective in February 2009. Therefore, it could result in somewhat more lead being released into the environment than would occur if the exemptions were not granted. However, since in some cases the products that would be substituted for the children's products that would be effectively banned if the exemptions were not granted would be products intended for general consumer use that are not subject to the lead-content restrictions, the additional lead released over what would be released if the exemptions were not granted is likely to be small. Therefore any adverse environmental effects of the rule are likely to be small.