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

BP - Children's Products Containing Lead Exemptions
for Certain Electronic Devices; Final Rule

This document to be discussed at
Open Commission Meeting
Wednesday, December 16, 2009
(Item 2 on Agenda)

VOTE SHEET

DATE: DEC - 9 2009

TO: The Commission
Todd A. Stevenson, Secretary

THROUGH: Cheryl A. Falvey, General Counsel *CAF*
Maruta Budetti, Executive Director *MZB*

FROM: Philip Chao, Assistant General Counsel *PC*
Hyun S. Kim, Attorney, OGC *HSK*

SUBJECT: Children's Products Containing Lead; Exemptions for Certain Electronic Devices;
Final Rule

The Office of the General Counsel is providing for Commission consideration the attached draft *Federal Register* notice on a final rule concerning exemptions for certain electronic devices for which it is not technologically feasible to meet the lead limits under section 101(b)(4) of the Consumer Product Safety Improvement Act (CPSIA).

Please indicate your vote on the following options.

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

(Signature) (Date)

- II. Publish the draft final rule on electronic devices in the *Federal Register* with changes.
(Please specify.)

(Signature) (Date)

CPSA 6(b)(1) CLEARED for PUBLIC

NO MFRS/PRVTLBLRS OR
PRODUCTS IDENTIFIED

EXCEPTED BY: PETITION
RULEMAKING ADMIN. PRCDG

WITH PORTIONS REMOVED: _____

CPSC Hotline: 1-800-638-CPSC(2772) ★ CPSC's Web Site: <http://www.cpsc.gov>

Note: This document has not been
reviewed or accepted by the Commission.
Initials *RA* Date *12/9/09*

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

(Signature)

(Date)

IV. Take other action. (Please specify.)

(Signature)

(Date)

Attachments:

Draft *Federal Register* Notice: Children's Products Containing Lead; Exemptions for Certain Electronic Devices; Final Rule

Memorandum from Kristina M. Hatlelid, Toxicologist, to Robert J. Howell, Assistant Executive Director, Health Sciences, *Consumer Product Safety Improvement Act of 2008 (CPSIA); Regulation of Certain Electronic Devices* dated December 2009.

Memorandum from Kristina M. Hatlelid, Toxicologist, Directorate for Health Sciences to Mary Ann Danello, Associate Executive Director, *Response to Public Comments; Certain Electronic Devices* dated December 2009.

Memorandum from Robert Franklin, Economist to Kristina Hatlelid, *Economic analysis of a rule providing exemptions or alternative limits for certain electronic devices from section 101(a) of the Consumer Product Safety Improvement Act* dated September 2009.

CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Part 1500

**Children's Products Containing Lead; Exemptions for Certain
Electronic Devices; Final Rule**

AGENCY: Consumer Product Safety Commission.

ACTION: Final rule

SUMMARY: The Consumer Product Safety Commission (CPSC or Commission) is issuing an final rule concerning certain electronic devices for which it is not technologically feasible to meet the lead limits as required under section 101 of the Consumer Product Safety Improvement Act of 2008 (CPSIA), Public Law 110-314, 122 Stat. 3016.

DATES: *Effective Date:* This final rule is effective on
[insert date of publication in the FEDERAL REGISTER].

FOR FURTHER INFORMATION CONTACT: Kristina Hatlelid, Ph.D., M.P.H., Directorate for Health Sciences, Consumer Product Safety Commission, 4330 East West Highway, Bethesda, Maryland 20814; e-mail khatlelid@cpsc.gov; telephone (301) 504-7254.

SUPPLEMENTARY INFORMATION:

A. Background

The CPSIA provides for specific lead limits in children's products. Section 101(a) of the CPSIA provides that, by February 10, 2009, products designed or intended primarily for children 12 and younger may not contain more than 600 ppm of lead. After August 14, 2009, products designed or intended primarily for children 12 and younger cannot contain more than 300 ppm of lead. The limit will be further reduced to 100 ppm after three years, or August 14, 2011, unless the Commission determines that it is not technologically feasible to meet this lower limit. Section 3(a)(16) of the Consumer Product Safety Act, as amended by section 235(a) of the CPSIA, defines "children's product" as a "consumer product designed or intended primarily for children 12 years of age or younger."

B. Statutory Authority

Section 101(b)(2) of the CPSIA provides that the lead limits do not apply to component parts of a product that are not accessible to a child. This section 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, as determined by the Commission. 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. Section 101 (b) (2) (B) of the CPSIA further 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. An interpretative rule providing guidance on inaccessibility (inaccessibility rule) was published in the *Federal Register* on August 7, 2009 (74 FR 39535).

In addition, if 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 may issue requirements by regulation to eliminate or minimize the potential for exposure to and accessibility of lead in such electronic devices, and establish a schedule for achieving full compliance unless the Commission determines that full compliance with the lead limits is not technologically feasible within such a schedule. Technological feasibility is based on the commercial availability of products, technology, or other practices that will allow compliance with the lead limits.

On January 15, 2009, the Commission issued a notice of proposed rulemaking on requirements for certain electronic devices that could not comply with the lead limits due to technological infeasibility (74 FR 2435). The notice of proposed rulemaking was withdrawn on February 12, 2009 (74 FR 7021). On that date, the Commission issued an interim final rule (74 FR 6991) to provide certain exemptions for children's electronic devices including:

- inaccessible lead-containing component parts;
- accessible lead-containing components parts that cannot be produced without lead due to the lack of technologically feasible substitutions and which require lead for the proper functioning of the component part; and
- lead-containing spare parts or other removable components which are inaccessible when the product is assembled in functional form or is otherwise granted an exemption.

The interim final rule also directed Commission staff to reevaluate and report to the Commission on the technical feasibility of compliance with the lead limits, including the technological feasibility of making accessible component parts inaccessible, and the status of the exemptions no less than every five years after publication

of a final rule in the *Federal Register*. Comments on the interim final rule were due on March 16, 2009.

C. Discussion of Comments to the Interim Final Rule

The Commission received seven comments from consumer groups, electronics associations, companies, and individuals. In general, most comments sought to narrow or expand the scope of the exemptions.

1. Summary of the Law—Section 1500.88(a)

Section 1500.88(a), in essence, summarized the lead content limits in children's products under section 101 of the CPSIA and how, over time, the limits decrease from 600 ppm to 100 ppm by August 14, 2011 unless the Commission determines that it is not technologically feasible to meet this lower limit. Section 1500.88(a) also stated that, "Paint, coatings or electroplating may not be considered a barrier that would make the lead content of a product inaccessible to a child."

We did not receive any comment on this provision and have finalized it without change.

2. Technological Feasibility—Section 1500.88(b)

Section 1500.88(b) explained that if the Commission determines that it is not technologically feasible for certain electronic devices, the Commission must issue

requirements by regulation to eliminate or minimize the potential for exposure to and accessibility of lead in such electronic devices and establish a schedule unless the Commission determines that full compliance is not technologically feasible.

One commenter requested guidance regarding the definition of "electronic devices."

The CPSIA does not provide a definition for electronic devices. However, we believe a reasonable definition of an electronic device is "a device that generates, stores, distributes, or converts electrical energy into another energy form." Examples of children's electronic devices include, but are not limited to, products with batteries or power cords (or that use solar power or other power sources), such as music players, headphones, some toys and games, some calculators, and certain computers or similar electronic learning products.

3. Certain Lead-Containing Component Parts-Section 1500.88(c)

Section 1500.88(c) provided that certain lead-containing component parts in electronic devices that are unable to meet the lead limits would be granted exemptions provided that the use of lead is necessary for the proper functioning of the component part and it is not

technologically feasible for the component part to meet the lead content limits.

One commenter stated that the exemptions should be narrowed to cover only components of electrical goods. This commenter asserted that the language in the interim final rule could be read to exclude general materials that contain metal alloys and enable manufacturers to add lead although it may not be technologically necessary to do so.

The rule was intended to be limited to the materials and components necessary for the electronic functioning of children's electronic devices. In response to the comments, we have revised § 1500.88(c) by adding the word "electronic" before the word "functioning." In addition, we have further clarified § 1500.88(d) to add the word "electronic" before "component parts" in the first sentence. Non-functional uses of lead in children's electronic devices remain subject to the lead content limits under section 101(a) of the CPSIA. For example, if the metal component part was purely decorative, such as a cell phone charm or wrist accessory sold with, or attached to, a child's phone, that charm or accessory is not necessary to the proper electronic functioning of the component part and is subject to the lead content limits.

Another commenter requested that the exemptions for the metal alloy components in children's electronic devices be extended to products whose mechanical functions require the use of material containing lead, such as a brass collar on the wheel of a toy. The commenter also asserted that the electronic exemption for "lead-bronze bearing shells and bushings" are not primarily used for the transmission of electrical current, but are mechanical devices.

Section 101(b)(4) of the CPSIA allows exemptions to the lead content limits if the Commission finds that it is not technologically feasible to remove the lead from the electronic devices. This section does not provide for exemptions for other types of products that are unrelated to electronic devices. The exemptions under this rule include bearing shells and bushings only when those bearing shells and bushings are integral to the operation of certain electronic devices, such as electric motors. For this reason, lead-bronze bearing shells and bushings are allowed in children's electronic devices. However, the exemption does not extend to bearing shells and bushings in children's products that are unrelated to electronic operations because they do not fall within the scope of these exemptions. Such components must comply with the CPSIA's lead content limits. We note that if such

components are inaccessible to a child, they would not be subject to the CPSIA lead content limits under 16 CFR 1500.87.

One commenter stated that the health implications of lead exposure from the electronic products have not been considered and that the proposal does not provide an incentive to improve technology to reduce lead content. The commenter also stated that exempted products should be labeled as to lead content. Another commenter stated that no exemptions should be granted given the dangerous effects of lead in children.

As discussed in the preamble to the interim final rule (74 FR at 6992), the complete elimination of lead, or the reduction in lead content to the lead content limits specified in the CPSIA, is currently not technologically feasible for children's electronic products. Accordingly, the final rule provides for certain exemptions from the lead limits for a limited number of components of electronic devices that must be manufactured using lead, including in certain metal alloys. Such component parts could include power cord pins, cathode-ray tubes, and electrical connectors. Children are not expected to experience significant exposures to lead from these few applications. The lead containing components that are

being exempted are components that one would not expect children to mouth, swallow, or handle for significant periods under normal and reasonably foreseeable conditions. Moreover, with few exceptions, many electronic devices will be in compliance with the lead limits under the CPSIA either because they already meet the lead content limits or because the lead-containing component part is inaccessible (74 FR at 6992).

Furthermore, we do not believe that labeling electronic devices for their lead content would add to the safety of these products. In the absence of the exemptions provided for in the CPSIA and this rule, certain electronics devices would be banned if they were intended primarily for children. The likely substitute for some of these products would be similar products that are intended for general consumer use. Thus, not providing these exemptions could result in increases in the children's lead exposure from products intended for general consumer use that are not subject either to the lead limitations in the CPSIA or the alternate lead limits provided for in the exemptions under this rule.

We also disagree with the commenter's assertion that the rule does not provide incentives for technological improvements. Congress recognized that certain electronic

devices currently may not be able to meet the lead content limits. However, under section 101(b)(5) of the CPSIA, the Commission specifically was directed to periodically review and revise the regulations, as necessary, no less than every 5 years. The Commission intends to continue to evaluate the technological feasibility of making accessible component parts inaccessible, and to reevaluate the exemptions within that time frame as provided under § 1500.88(f) of this rule.

4. Exemptions for Lead - Section 1500.88(d)

This section set forth the specific exemptions for lead as use in certain component parts in children's products. As discussed in part C.3 of this preamble, we have added the word "electronic" before "component parts" in the first sentence of § 1500.88(d) to make clear that this rule applies to materials and components necessary for the electronic functioning of children's electronic devices.

Additionally, on our own initiative, we have revised § 1500.88(d)(1) to insert a comma between "electronic components" and "and fluorescent tubes" to clarify that electronic components and fluorescent tubes should be considered as separate items rather than as one item or as synonyms. We also have revised § 1500.88(d)(2) to replace "3500 ppm" with "3,500 ppm," for purposes of consistency

with how the ppm levels are expressed elsewhere in the final rule. We also have revised § 1500.88(d)(8) to insert a comma between "the seal frit and frit ring" and "as well as in print pastes" to clarify that a seal frit and frit ring are distinct from print pastes.

Commenters representing the electronics industry manufacturers asserted that the list of exempted materials and components in the final rule is too limited. They requested that the rule incorporate all of the current exemptions of the use of lead in the European Union's Restriction on Hazardous Substances (EU RoHS) directive to avoid inconsistencies and to harmonize with other standards. They claimed that while ongoing research aims to find alternatives and eliminate the use of lead, it is not yet technologically feasible to avoid all uses of lead. The commenters also asserted that testing for lead in electronic products is difficult and costly.

We do not believe that it is necessary to incorporate into the rule all of the exemptions listed in the EU RoHS directive. (European Union Directive 2002/95/EC and amendments to the directive are available at <http://eur-lex.europa.eu/en/index.htm>.) The European Union and other countries and authorities have adopted

restrictions on the use of lead and other chemicals in electronic devices to address concerns related to human health and environmental impacts of waste electrical and electronic equipment. The EU RoHS 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. 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. The list of exemptions covered under the EU RoHS directive is intended to cover all electric and electronic equipment.

The list of exemptions provided under this rule is intended to allow the use of lead-containing components used in children's products that are necessary for the electronic functioning of the children's electronic device. Accordingly, the list of exemptions does not include exemptions for uses of lead in components that have no application to, or would not otherwise be used in children's products. For example, adopting the EU RoHS directive would result in the inclusion of EU RoHS

directive exemption 23, "Lead alloys as solder for transducers used in high-powered (designed to operate for several hours at acoustic power levels of 125dB SPL and above) loudspeakers" into the final rule. Such high powered speakers may be appropriate for use in a stadium, but are not a children's product. Because the commenters did not identify any specific exemption under the EU RoHS directive or similar directives that may, in fact, require the use of lead in a component of children's electronic devices and that also is not listed as an exemption under this rule, we decline to revise the list of exemptions at this time. We note that this rule does not preclude the commenters from complying with the EU RoHS directive if they choose to do so. However, if commenters need additional exemptions for lead-containing component parts in children's electronic devices, they can submit a petition under the procedures set forth under 16 CFR part 1051 with the supporting documentation. A general request for regulatory action which does not reasonably specify the type of action requested is not sufficient for purposes of a petition request. 16 CFR 1051.6(a)(5).

Commenters also requested that the rule explicitly state that exempted or inaccessible parts are not subject to the testing requirement of section 102 of the CPSIA.

With regard to inaccessible component parts, the preamble to the inaccessibility rule stated that a manufacturer currently is not required to provide third-party testing to demonstrate inaccessibility (74 FR at 39537). In addition, many of the exemptions provided under this rule do not require testing under section 102 of the CPSIA because there are no lead limits associated with the exemptions. However, the exemptions for the metal alloys are not blanket or absolute exemptions. Instead, they are presented as alternate lead limits. As such, those components, i.e., copper (less than 4 percent lead by weight), steel (less than 0.35 percent lead by weight), and aluminum (less than 0.4 percent lead by weight), must still be tested by the manufacturer to verify that these component parts comply with these higher lead limits under section 102 of the CPSIA.

The Commission intends to address component part testing and the establishment of protocols and standards for ensuring that children's products are tested for compliance with applicable children's products safety rules in an upcoming rulemaking.

As for the other specific exemptions mentioned in § 1500.88(d), such as lead used in compliant pin connector

systems (§ 1500.88(d)(6)), lead used in optical and filter glass (§ 1500.88(d)(7)), lead oxide in plasma display panels and surface conduction electron emitter displays used in structural elements (§ 1500.88(d)(8)), and lead oxide in the glass envelope of Black Light Blue lamps (§ 1500.88(d)(9)), we did not receive comments on those provisions. Consequently, the final rule retains those provisions without change.

5. *Removable or Replaceable Parts - Section 1500.88(e)*

This section provided that components of electronic devices that are removable or replaceable, such as battery packs and light bulbs, are not subject to the lead content limits if they otherwise granted an exemption or are inaccessible when the product is assembled in functional form.

Several commenters addressed removable and replaceable parts. Some commenters supported the exemption from the lead content limits for such parts on the basis that replacing or installing parts of a children's electronic device is not a children's activity. Other commenters opposed the exemption because children could access the lead-containing parts when they are not installed.

We decline to revise the rule as suggested by some commenters. We have determined that removable or replaceable parts, such as battery packs and light bulbs, that are inaccessible when installed in the product, are not subject to the lead content requirements. When installed, such parts are inaccessible under 16 CFR § 1500.87. In addition, these types of spare parts or replacement parts, including battery pack and light bulbs, are not intended primarily for children since such parts are available for general use by the public. While spare parts may sometimes be included with a children's product, in many instances, the parts, necessary for the functioning of the electronic device, are to be installed by adults, and are inaccessible to children once installed.

One commenter requested guidance regarding whether a metal key sold with electrical electronic equipment would be subject to the lead content limits. According to the commenter, keys are made with copper alloy and aluminum and contain lead of up to 0.4%. The commenter stated that substitutes containing lead below 300 ppm are unavailable.

The definition of "children's product" means a consumer product designed or intended primarily for children 12 years of age. A key used in connection with a child's

electronic device does not necessarily make the key a children's product if the key is intended for an adult to use in safeguarding or monitoring the use of the electronic equipment. In such instances, the key would be in the possession of the adult at all times, and would not be considered a children's product. In other instances, if a key is to be used primarily by a child in connection with an electronic device, an exemption from the lead content limits under the CPSIA would apply only in instances where such a key is necessary for the electronic functioning of the device.

6. Review Period - Section 1500.88(f)

This section provides that the Commission staff will reevaluate and report to the Commission on the technological feasibility of compliance with the lead content limits for children's electronic devices, including the technological feasibility of making accessible component part inaccessible, and the status of the exemptions no less than every five years.

One commenter stated that the EU RoHS directive specifies that exemptions must be reviewed every four years. The commenter requested that the Commission adopt the same four year review cycle.

As discussed in part C.4 of this preamble, we are not adopting all of the exemptions in the EU RoHS directive at this time. Accordingly, the Commission's review on the exemptions provided under this rule will be based on the application of lead in children's electronic devices. Section 101(b)(5) of the CPSIA provides that reviews and possible revision must occur no less frequently than every five years. Thus, we do not believe that the rule needs to be revised at this time. However, to the extent technological advances are made in the next few years, such that the existing exemptions warrant revision or rescission, we will review such changes and consider revisions prior to the 5 year review period.

D. Impact on Small Businesses

Under the Regulatory Flexibility Act (RFA), when an agency issues a proposed rule, it generally must prepare an initial regulatory flexibility analysis describing the impact the proposed rule is expected to have on small entities. 5 U.S.C. 603. The RFA does not require a regulatory flexibility analysis if the head of the agency certifies that the rule will not have a significant effect on a substantial number of small entities.

In the preamble to the interim final rule (74 FR at 6992), the Commission's Directorate for Economic Analysis

determined that the exemption for certain specified materials from the requirements of section 101(a) of the CPSIA 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 associated with compliance with the lead content limits of the CPSIA. Based on the foregoing assessment, the Commission certifies that the rule would not have a significant impact on a substantial number of small entities.

E. Environmental Considerations

Generally, CPSC rules are considered to "have little or no potential for affecting the human environment," and environmental assessments are not usually prepared for these rules (see 16 CFR 1021.5(c)(1)). The final rule is not expected to have an adverse impact on the environment, thus, the Commission concludes that no environment assessment or environmental impact statement is required in this proceeding.

F. Executive Orders

According to Executive Order 12988 (February 5, 1996), agencies must state in clear language the preemptive effect, if any, of new regulations. The preemptive effect of regulations such as this final rule is stated in section

18 of the Federal Hazardous Substances Act. 15 U.S.C. 1261n.

G. Effective Date

The Administrative Procedure Act requires that a substantive rule must be published not less than 30 days before its effective date, unless the rule relieves a restriction. 5 U.S.C. 553(d)(1). Because the final rule provides relief from existing testing requirements under the CPSIA and is virtually identical to an interim final rule that has been in effect since February 10, 2009, the effective date for the final rule is [**insert date of publication in the FEDERAL REGISTER**].

List of Subjects in 16 CFR Part 1500

Consumer protection, Hazardous materials, Hazardous substances, Imports, Infants and children, Labeling, Law enforcement, and Toys.

H. Conclusion

For the reasons stated above, the Commission amends Title 16 of the Code of Federal Regulations as follows:

PART 1500 - HAZARDOUS SUBSTANCES AND ARTICLES:

ADMINISTRATION AND ENFORCEMENT REGULATIONS

1. The authority for part 1500 continues to read as follows:

Authority: 15 U.S.C. 1261-1278, 122 Stat. 3016.

2. Add a new section 1500.88 to read as follows:

§ 1500.88 Exemptions from Lead Limits under section 101 of the Consumer Product Safety Improvement Act for Certain Electronic Devices.

(a) The Consumer Product Safety Improvement Act (CPSIA) provides for specific lead limits in children's products. Section 101(a) of the CPSIA provides that by February 10, 2009, products designed or intended primarily for children 12 and younger may not contain more than 600 ppm of lead. After August 14, 2009, products designed or intended primarily for children 12 and younger cannot contain more than 300 ppm of lead. On August 14, 2011, the limit will be further reduced to 100 ppm, unless the Commission determines that it is not technologically feasible to meet this lower limit. Paint, coatings or electroplating may not be considered a barrier that would make the lead content of a product inaccessible to a child.

(b) Section 101(b)(4) of the CPSIA provides that if the Commission determines that it is not technologically feasible for certain electronic devices to comply with the lead limits, the Commission must issue requirements by regulation to eliminate or minimize the potential for exposure to and accessibility of lead in such electronic devices and establish a compliance schedule unless the

Commission determines that full compliance is not technologically feasible.

(c) Certain lead-containing component parts in children's electronic devices unable to meet the lead limits set forth in paragraph (a) of this section due to technological infeasibility are granted the exemptions that follow in paragraph (d) of this section below, provided that use of lead is necessary for the proper electronic functioning of the component part and it is not technologically feasible for the component part to meet the lead content limits set forth in paragraph (a) of this section.

(d) Exemptions for lead as used in certain electronic components parts in children's electronic devices include:

(1) Lead blended into the glass of cathode ray tubes, electronic components, and fluorescent tubes.

(2) Lead used as an alloying element in steel. The maximum amount of lead shall be less than 0.35% by weight (3,500 ppm).

(3) Lead used in the manufacture of aluminum. The maximum amount of lead shall be less than 0.4% by weight (4,000 ppm).

(4) Lead used in copper-based alloys. The maximum amount of lead shall be less than 4% by weight (40,000 ppm).

(5) Lead used in lead-bronze bearing shells and bushings.

(6) Lead used in compliant pin connector systems.

(7) Lead used in optical and filter glass.

(8) 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.

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

(e) Components of electronic devices that are removable or replaceable such as battery packs and light bulbs that are inaccessible when the product is assembled in functional form or are otherwise granted an exemption are not subject to the lead limits in paragraph (a) of this section.

(f) Commission staff is directed to reevaluate and report to the Commission on the technological feasibility of compliance with the lead limits in paragraph (a) of this

section for children's electronic devices, including the technological feasibility of making accessible component parts inaccessible, and the status of the exemptions, no less than every five years after publication of a final rule in the *Federal Register* on children's electronic devices.

Dated: _____

Todd A. Stevenson, Secretary
Consumer Product Safety Commission



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

Memorandum

Date: **DEC - 9 2009**

TO : The Commission
Todd A. Stevenson, Secretary

THROUGH: Cheryl A. Falvey, General Counsel *CAF*
Maruta Z. Budetti, Executive Director *MYB*

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

SUBJECT : Consumer Product Safety Improvement Act of 2008 (CPSIA): Regulation of
Certain Electronic Devices

Introduction

The Consumer Product Safety Improvement Act (CPSIA) provides for specific lead limits in children's products. Section 101(a) of the CPSIA provides that after August 14, 2009, children's products cannot contain more than 300 ppm of lead, and on August 14, 2011, the limit may be further reduced to 100 ppm, unless the Commission determines that it is not technologically feasible to achieve this lower limit. Paint, coatings or electroplating may not be considered a barrier that would make the lead content of a product inaccessible to a child.

Section 101(b)(4) of the CPSIA provides that if the Commission determines that it is not technologically feasible for certain electronic devices to comply with the lead limits, the Commission must issue requirements by regulation to eliminate or minimize the potential for exposure to and accessibility of lead in such electronic devices and establish a compliance schedule unless the Commission determines that full compliance is not technologically feasible.

On January 15, 2009, the Commission published in the Federal Register a notice of proposed rulemaking (74 FR 2435) concerning a proposed Commission determination that it is not technologically feasible for certain electronic devices to comply with CPSIA section 101(a), and proposed alternative requirements for lead content of such electronic devices. On February 12, 2009, the Commission published in the Federal Register an interim final rule (74 FR 6990), as well as a withdrawal of the proposed rulemaking (74 FR 7021).

Interim Final Rule

The interim final rule provides that certain component parts in children's electronic devices are exempt from the CPSIA lead content requirements on the basis of technological feasibility. The rule identifies as exempt a number of specific items and provides alternate lead content limits for

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Initials RJH Date 12/9/09

certain metal alloys. The rule also addresses removable or replaceable component parts that are inaccessible when the product is assembled in functional form.

Public Comments

As discussed in the accompanying memorandum¹, comments received from the public raised several issues concerning the scope of the rule, including whether the exemptions are too broad or too restrictive, and other specific provisions of the rule.

Some commenters expressed concern that the purpose of the law in reducing lead exposures is not supported by a rule allowing for exemptions. The law allows the Commission to address the technological feasibility of certain electronic devices to comply with the CPSIA lead content limits, but it also directs the Commission to review each regulation and to revise each regulation to make it more stringent and to require the lowest amount of lead that is technologically feasible. The law indicates that reviews and possible revision must occur no less frequently than every five years, but there is no restriction on conducting reviews more frequently than every five years if the Commission finds that technological advances have been made.

Some commenters indicated that the rule applies too broadly and that products should generally comply with the CPSIA section (101)(a) lead limits. Other commenters requested that the scope be broadened beyond electronic devices or to include additional electronic components that were not included in the interim final rule. The law allows for exemption from the lead content requirements for certain electronic devices, as indicated in the interim final rule. However, it does not provide for exemptions for other types of products. The staff identified a limited number of materials or components of electronic devices that may be components of children's products that should be excluded from the CPSIA lead limits on the basis of technological feasibility. While one comment included a request that additional items be exempted, the staff believes that the additional items are either not expected to be part of children's products or would not be accessible parts of a product; no specific product or component was indicated as a children's product that should be exempted that is not already listed in the interim final rule.

Several comments addressed removable and replaceable parts, both in support of the exemption from the lead content limits for such parts on the basis that replacing or installing parts of a children's electronic device is not a children's activity, and in opposition to the exemption because children could access the lead-containing parts when they are not installed. The staff believes that removable or replaceable parts, such as battery packs and light bulbs, that are inaccessible when installed in the product, are not subject to the lead content requirements. Further, many spare parts or replacement parts are not intended primarily for children since such component parts are for general use by the public or must be specially ordered for specific products by adults. While spare parts may sometimes be included with a children's product, in many instances, the parts, necessary for the functioning of the electronic device, are to be installed by adults, and are inaccessible to children once installed.

¹ The staff's summary of the public comments and the staff's responses are located in the memorandum from Kristina M. Hatlelid, Ph.D., M.P.H., to Mary Ann Danello, Ph.D., Response to Public Comments: Certain Electronic Devices, October 2009.

Regulatory Analysis

Staff prepared the regulatory analysis² required for Commission regulatory proceedings, including an assessment of the potential benefits and costs of the rule, an assessment of the impact on small businesses, and an environmental assessment.

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 rule, 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. For example, products such as CD and DVD players, computers, electronic games, telephones, and televisions are used by people of all ages, but some of these products are designed specifically for children age 12 years and younger, with features such as decorations that appeal to children, designs that make them easier to operate, or characteristics to make them sturdier for use by children.

Because the rule would provide exemptions 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 exemptions or alternative limits, would not have been available for use. However, the staff believes that the likelihood is low that lead exposure from exempted electronic devices would result in significant lead absorption by children. Additionally, the rule 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; *i.e.*, products that are not subject to the lead content limits of the CPSIA.

Neither the benefits nor the costs of the rule can be quantified with the available information.

The number of small businesses that will be directly affected by the rule is unknown but could be considerable. However, because the rule would exempt certain specified devices or components from the requirements of section 101(a) of the CPSIA or establishes alternative, less restrictive requirements for others, it will not increase the costs of production for any firm. Consequently, the Commission could make a finding that the rule will not have a significant economic impact on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

This rule will not result in any additional use of lead over what is occurring at the present time. It will exempt some electronic devices intended for children from the more stringent requirements of the CPSIA. Therefore, it could result in somewhat more lead being released into the environment than would occur if the rule were not promulgated. However, in some cases electronic devices intended for general consumer use, which are not subject to the lead limits in the CPSIA, would be substituted for the children's products that would be effectively banned if the rule were not promulgated. Consequently, 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.

² CPSC Memorandum from Robert Franklin to Kristina Hatlelid, "Economic analysis of a rule providing exemptions or alternative limits for certain electronic devices from section 101(a) of the Consumer Product Safety Improvement Act," September 16, 2009.

Recommendation

The staff recommends that the Commission issue a final rule that specifies, as in the interim final rule, exemptions for certain electronic devices or components of devices for which it is not technologically feasible to comply with the CPSIA lead content limits. Because of the public comments seeking clarification about the scope of products or component parts that are exempt from the lead content requirements, the staff recommends that the rule clearly state that the scope of the exclusions is limited to materials and components that are integral to the electronic functioning of certain electronic devices and only applies to the use of such materials in electronic devices.



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

Memorandum

Date: **DEC - 9 2009**

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 KH

SUBJECT : Response to Public Comments: Certain Electronic Devices

Introduction

On January 15, 2009, the Commission published in the Federal Register a notice of proposed rulemaking (74 FR 2435) concerning a proposed Commission determination that it is not technologically feasible for certain electronic devices to comply with Section 101(a) of the Consumer Product Safety Improvement Act (CPSIA), and proposed alternative requirements for lead content of such electronic devices. On February 12, 2009, the Commission published in the Federal Register an interim final rule (74 FR 6990), as well as a withdrawal of the proposed rulemaking (74 FR 7021). The publication of both the proposed rule and the interim final rule provided a period for public comment. This memorandum summarizes the comments received from the public in response to both notices, and provides the staff's responses to the comments. The index of public comments is in Appendix A.

Comments were received from an anonymous commenter through Regulations.gov; Gary Jones of Learning Curve Brands, Inc.; another commenter, Jane, submitted through Regulations.gov; a group of organizations representing electronics industries; a group of consumer advocates; Joe Lee of SMART Technologies; and Pratik Ichhaporia of Intertek Consumer Goods-North America.

Discussion

Comment 1:

Comment 1, submitted anonymously through Regulations.gov, provided several comments about the proposed rule, expressing concern that it allows the use of lead when the purpose of the CPSIA is to limit lead content and exposure. The commenter states that the health implications of lead exposure from the electronic products have not been accounted for, that the proposal does not provide incentive to improve technology to reduce lead content, that exempted products should be labeled as to lead content, and that spare parts should not be considered to be

inaccessible because they are removable. This comment stated that the periodic review of the rule is important because of the rapid pace of technological change.

CPSC Staff Response:

CPSIA section 101(b)(4) addresses the technological feasibility of electronic devices to comply with the lead limits. This section provides the Commission authority to issue regulations for certain electronic devices that cannot comply with the lead limits considering technological feasibility. On this basis, the staff recommended certain specific materials and components of electronic devices that should be excluded at this time or that should comply with alternate lead limits. Staff will revisit these alternate requirements no less frequently than every five years, to evaluate the state of the technology.

The rule provides for exclusion from the lead limits for a limited number of components of electronic devices that must be manufactured using certain metal alloys, such as power cord pins, and for certain other specific components such as cathode ray tubes. Children are not expected to experience significant exposures to lead from these specific component parts of electronic devices, and the staff has no knowledge that such components would be associated with a significant proportion of children's overall lead exposures. Thus, the staff concluded that the health implications of the lead content of electronic devices are minimal, and there is no basis for requiring warning labels for such products.

The staff believes that the complete elimination of lead, or the reduction in lead content to the lead content limits specified in the CPSIA, for all products is not currently technologically feasible. Staff will revisit these alternate requirements no less frequently than every five years, to evaluate the state of the technology.

The staff also notes that in the absence of the exemptions provided for in this rule, certain electronics devices would be banned if they were intended primarily for children. The likely substitute for some of these products would be similar products that are intended for general consumer use. Thus, not providing these exemptions could result in increases in children's lead exposure from products intended for general consumer use that are not subject to the lead limitations in the CPSIA.

Removable or replaceable parts, such as battery packs and light bulbs, that are inaccessible when installed in the product, are not subject to the lead content requirements. Many spare parts or replacement parts are not intended primarily for children since such component parts are for general use by the public or must be specially ordered for specific products by adults. While spare parts may sometimes be included with a children's product, in many instances, the parts, necessary for the functioning of the electronic device, are to be installed by adults, and are inaccessible to children once installed.

Comment 2:

Comment 2 from Gary Jones of Learning Curve Brands, Inc. addresses primarily the need for lead in certain metal alloy components that are not electronic products. Mr. Jones suggested that the exclusion should be extended to accessible metal alloy components in products whose mechanical functions necessitate the use of materials containing lead, excepting components that are or become small parts since a child could swallow such parts. Mr. Jones specifically mentioned that one of the categories of materials allowed in the interim final rule, "lead-bronze bearing shells and bushings," are not used for electrical functions, but are mechanical devices.

CPSC Staff Response:

Bearing shells and bushings are, in some cases, integral to the operation of certain electronic devices, such as electric motors. CPSIA section 101(b)(4) specifically addresses the technological feasibility of electronic devices to comply with the lead limits. This section does not provide for exemptions for other types of products that are unrelated to electronic functionality.

Therefore, while the use of lead-bronze bearing shells and bushings in certain electronic devices is allowed by regulation, other applications of bearing shells and bushings in products that have no direct connection to electronic operations do not fall within the scope of exemptions for certain electronic products. Such components must comply with the CPSIA lead content limits. However, if such components are inaccessible to a child, they would not be subject to the CPSIA lead limits. 16 CFR 1500.87.

Mr. Jones' products are also the subject of a separate request for exclusion from the lead limits under section 101(b)(1) of the CPSIA. The Commission is responding to that request in a separate proceeding.

Comment 3:

This comment, submitted through Regulations.gov, indicated support for the law, as well as support for withdrawing the proposed electronic devices rule. The commenter cited the known adverse health effects of lead exposure and certain other regulations, such as banning lead in household paint and gasoline.

CPSC Staff Response:

The staff agrees that exposure to lead can result in adverse health effects. On the other hand, the staff recognizes that the complete elimination of lead, or the reduction in lead content to the lead content limits specified in the CPSIA, for all products is not currently technologically feasible. The CPSIA allows for certain electronic devices to be excluded from complying with the lead limits for this reason, and the staff recommended certain specific materials and components of electronic devices that should be excluded at this time. Staff will revisit these alternate requirements no less frequently than every five years, to evaluate the state of the technology.

Comment 4:

This comment, submitted by Brian Markwalter of the Consumer Electronics Association, Christopher Cleet of the Information Technology Industry Council, and Ronald F. Chamrin of the IPC-Association Connecting Electronics Industries, discussed several points related to the electronic devices interim final rule and the Commission's rule of component parts accessibility. These commenters stated that most electronic devices are not children's products.

For those products that are children's products, the commenters raised several issues. They stated that component parts within a device, that might contain a lead-containing component, should not be considered to be an accessible lead-containing component.

The commenters asserted that the list of exempted materials and components in the final rule was limited; they requested that the rule incorporate all of the current exemptions of the use of lead in the European Union's Restriction on Hazardous Substances (RoHS) directive, in order to avoid inconsistencies and harmonize with other standards. They indicated that while ongoing research

aims to find alternatives and eliminate the use of lead, it is not yet technologically feasible to avoid all uses of lead.

These commenters also requested that the rule explicitly state that exempted or inaccessible parts are relieved of the testing requirement of section 102 of the CPSIA.

The commenters agreed with the Commission's conclusion that removable or replaceable parts should not be subject to the lead requirements if they are inaccessible to a child when the product is assembled in functional form, because they believe that replacing or installing parts of a children's electronic device is not a children's activity.

Finally, the commenters expressed that testing for lead in electronic products for parts that are not otherwise excluded from the lead content requirements is difficult and costly.

CPSC Staff Response:

The staff agrees that most consumer electronics are not children's products. However, there are certain products that would be considered to be children's products, as that term is defined in the Consumer Product Safety Act as amended by the CPSIA. Depending on factors such as manufacturers' statements, labeling, and marketing, children's electronic devices could include certain music players, headphones, some toys and games, some calculators, and certain computers or similar electronic learning products.

Regarding accessibility of lead-containing components, as discussed in the Federal Register notice for the Interpretative Rule on Inaccessible Component Parts (74 FR 39535), the Commission interprets a lead-containing component part to mean the material used to construct the part includes lead in its formulation, not that the part contains smaller parts that contain lead.

The staff does not agree that it is necessary to incorporate into the rule all of the exemptions listed in the directives such as European Union's Restriction on Hazardous Substances (RoHS). In contrast to the scope of the RoHS directive, which is electrical and electronic equipment in general, the focus of the CPSIA is children's products. Accordingly, the staff did not believe that it would be useful or appropriate to include electronic devices or components that have no application to children's products, such as RoHS exemption 25, "Lead alloys as solder for transducers used in high-powered (designed to operate for several hours at acoustic power levels of 125dB SPL and above) loudspeakers." Furthermore, unlike the RoHS and similar directives that restrict the lead content of all parts of products, the CPSIA does not restrict the use of lead in component parts that are not accessible to a child. Thus, it is not necessary to include the RoHS exemptions that are for applications of lead inside certain components that are not accessible to consumers. Because the commenters did not identify any specific exemption under the RoHS or similar directives that may, in fact, be a component of children's electronic devices, but that is not also listed as exempted in the interim final rule, the staff disagrees that additional items must be exempted from the CPSIA lead content limits. Components used in general-use consumer products are not subject to the CPSIA lead limits for children's products.

Commenters argue that the rule should explicitly state that exempted or inaccessible parts are not subject to the testing requirement of section 102 of the CPSIA. The staff agrees that the electronic devices rule specifically exempts certain components from the lead content requirements and does not require testing to comply with the CPSIA lead content limits. However, the staff notes that the exemptions for the metal alloys are not outright exemptions. Instead, they are alternate lead limits. As such, those components, *i.e.*, copper (less than

4 percent lead by weight), steel (less than 0.35 percent lead), and aluminum (less than 0.4 percent lead), must still be tested under section 102 of the CPSIA. The staff agrees that inaccessible component parts are not subject to the CPSIA lead limits, as stated in the inaccessibility rule. 16 CFR 1500.87.

Removable or replaceable parts, such as battery packs and light bulbs, that are inaccessible when installed in the product, are not subject to the lead content requirements. Many spare parts or replacement parts are not intended primarily for children since such component parts are for general use by the public or must be specially ordered for specific products by adults. While spare parts may sometimes be included with a children's product, in many instances, the parts, necessary for the functioning of the electronic device, are to be installed by adults, and are inaccessible to children once installed.

Finally, while it may be true that testing for lead in products is difficult and costly, the law does not provide for cost to be a consideration for compliance with section 101 of the CPSIA. However, the Commission will address issues related to the testing requirements of section 102 in a separate rulemaking.

Comment 5:

This comment by Janell Mayo Duncan and Donald L. Mays of Consumers Union, Rachel Weintraub of Consumer Federation of America, David Arkush of Public Citizen, and Ed Mierzwinski and Elizabeth Hitchcock of U.S. PIRG raised three main points.

The commenters state that the material exempted from the CPSIA lead content requirements is overly broad and not necessarily constrained to factors related to technological feasibility. The commenters also expressed concerns regarding removable components. The commenters stated that easily removable and replaceable parts should be required to meet the CPSIA lead content limits. Lastly, these commenters requested that the periodic review by the Commission should be no less frequent than every four years, rather than at least every five years.

CPSC Staff Response:

While the staff believes that the scope of the exemptions in the interim final rule is limited to materials and components that are integral to the electronic functioning of certain electronic devices and only applies to the use of such materials in electronics devices, the staff recommends that this should be clarified in the final rule.

Removable or replaceable parts, such as battery packs and light bulbs, that are inaccessible when installed in the product, are not subject to the lead content requirements. Many spare parts or replacement parts are not intended primarily for children since such component parts are for general use by the public or must be specially ordered for specific products by adults. While spare parts may sometimes be included with a children's product, in many instances, the parts, necessary for the functioning of the electronic device, are to be installed by adults, and are inaccessible to children once installed.

As indicated in the interim final rule, the periodic review by the Commission is specified to occur no less frequently than every five years, which is identical to the requirement for periodic review provided in the statute. There is no restriction on conducting reviews more frequently than every five years. That is, if the Commission finds soon after a periodic review that technological advances have been made, it could immediately initiate another review.

Comment 6:

Joe Lee from SMART Technologies discussed keys that are used with certain electronic equipment, and stated that it is difficult to find a vendor to supply such keys that comply with the CPSIA lead limits. Mr. Lee stated that it might be costly to manufacture compliant keys or that substitute materials might be less durable. He also stated that the keys would normally be used by teachers, not children.

CPSC Staff Response:

In the absence of specific product information, the staff is not able to fully address this commenter's concerns. Not all products used around children are necessarily children's products as this term is defined. Products that are not designed or intended primarily for children 12 years of age or younger are not subject to the lead limits. On the other hand, a product that is intended for children must comply with the lead content requirements of the CPSIA unless otherwise exempted by statute or rule.

However, the staff believes that the exclusions provided for certain electronic devices do not extend to all component parts of such devices, but to the components that are integral to the electronic functioning of the device. Whether a key would be considered to be a necessary part of the device's electronic function will depend, among other factors, on how it is used and by whom it is used.

Comment 7:

Pratik Ichhaporla of Intertek Consumer Goods-North America requested the definition of "electronic devices."

CPSC Staff Response:

The term "electronic devices" is not defined in the CPSIA. The staff believes that a reasonable definition is, "A device that generates, stores, distributes, or converts electrical energy into another energy form."

Examples of children's electronic devices include, but are not limited to, products with batteries or power cords (or that use solar power or other power sources), such as music players, headphones, some toys and games, some calculators, and certain computers or similar electronic learning products.

Products that are not designed or intended primarily for children 12 years of age or younger, even if children have access to them, are not subject to the lead limits.



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

Memorandum

Date: September 17, 2009

TO : Kristina Hatlelid, Ph.D., Project Manager
Directorate for Health Sciences

THROUGH : Gregory B. Rodgers, Ph.D., *GBR*
Associate Executive Director
Directorate for Economic Analysis

Deborah V. Aiken, Ph.D. *DVA*
Senior Staff Coordinator
Directorate for Economic Analysis

FROM : Robert Franklin *RF*
Economist
Directorate for Economic Analysis

SUBJECT : Economic analysis of a rule providing exemptions or alternative limits for certain electronic devices from section 101(a) of the Consumer Product Safety Improvement Act

The Consumer Product Safety Improvement Act of 2008 (CPSIA), establishes strict lead content limits for children's products. As of 14 August 2009, the lead content of children's products is limited to no more than 300 parts per million ("ppm"); as of August 14, 2011, it will be limited to no more than 100 ppm, 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 the Commission with authority to exempt or establish alternative requirements for such devices.

On 10 February 2009, the Commission issued an interim final rule that exempted some components of electronic devices from the requirements of section 101(a) of the CPSIA and established alternative limits for some other components. The Commission is now considering issuing a final rule covering these components.

Categories of Electronic Devices Covered by the Rule

One category of electronic devices covered by the rule consists of lead-containing components that are not physically accessible to children because they are encased within an electronic device. The accessibility of the lead-containing component is evaluated through the application of the accessibility probes described in 16 CFR 1500.48 and 1500.49, before and after use and abuse tests described at 16 CFR 1500.50 through 1500.53, and as provided in the guidance rule under CPSIA section 101(b)(2).

A second category of electronic devices covered by the rule consists of (1) components of electronic devices for which there is currently no technologically feasible substitute for lead that would allow for the proper functioning of the component and (2) components in which lead is required for safety purposes. For example, lead is required in cathode ray tubes to absorb x-rays and in some copper alloys used in electronic devices to adjust the mechanical strength and modulus of elasticity. The specific components of electronic devices included in this category are listed in the text of the rule. In some cases the rule exempts the component from lead limits established by the CPSIA (e.g., lead blended into the glass of cathode ray tubes, electronic components and florescent tubes). In other cases, the rule establishes alternative lead limits (e.g., lead used in the manufacture of aluminum components used in electronic devices is limited to less than 4,000 ppm).

The third and final category of electronic devices covered by the rule consists of 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.

Regulatory Analysis

Because the rule would provide exemptions 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 exemptions or alternative limits, 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 rule, 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. Products intended for general consumer use are 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.

When using the product designed for general consumer use, instead of one designed for children, 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 or to establish the alternative limits 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.

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 electronic devices covered by the rule. While the risks cannot be quantified with the available information, Health Sciences and Human Factors staff believes that the likelihood is low that lead exposure from the exempted electronic devices would result in significant lead absorption by children.

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, 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 final 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 could 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. Additionally, the rule 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 exempts certain specified devices or components from the requirements of section 101(a) of the CPSIA or establishes alternative, less restrictive requirements for others, it will not increase the costs of production for any firm. Consequently, the Commission could make a finding that the rule 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 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 electronic devices intended for children from the more stringent requirements of the CPSIA. Therefore, it could result in somewhat more lead being released into the environment than would occur if the rule were not promulgated. However, in some cases electronic devices intended for general consumer use, which are not subject to the lead limits in the CPSIA, would be substituted for the children's products that would be effectively banned if the rule were not promulgated. Consequently, 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.