

# Transcript of U.S. Toy Safety Requirements and Mandatory Standards: Common Violations

## **Slide 3**

Hi, my name is Sylvia Chen, and I want to welcome you to this podcast presentation today.

## **Slide 4**

As CPSC's Director of International Programs, Richard O'Brien stated: "design of safe products at the outset is critical." CPSC is a United States federal government agency charged with protecting the public from unreasonable risks of injury or death associated with the use of consumer products under the agency's jurisdiction. We have developed this podcast series not only to inform about regulations, standards, and other safety requirements, but also to emphasize the importance of designing products with safety considerations in mind, and to offer best practices for enhancing the safety of a variety of common consumer products.

## **Slide 5**

The series covers seven common consumer products and the requirements for keeping consumers safe, focusing on products affecting millions of consumers, such as electronics, apparel, bicycles, mattresses, infant and toddler products, carriages and strollers, and toys. In this podcast series, you can expect to learn about the key hazards and risks of the product, important design and manufacturing considerations, regulations and standards that CPSC uses to ensure product safety, best practices you can employ, and what resources are available to assist you in understanding and implementing the requirements.

The podcasts include English and Chinese slide decks and Chinese narration to make this important safety information as accessible as possible. Additionally, CPSC has established a dedicated email box, where listeners, at their convenience, can send in any questions, in English or Chinese. Our staff will monitor the email box and respond to your questions. Transcripts in English are available on this site.

## **Slide 6**

The slides used in this podcast are not a comprehensive statement of legal requirements or policy, and thus, should not be relied upon for that purpose. You should consult official versions of U.S. statutes and regulations, as well as published CPSC guidance, when making decisions that could affect the safety and compliance of products entering U.S. commerce. Note that references are provided at the end of the presentation.

## **Slide 7**

And now, I would like to introduce the presenter, Joseph Tsai, a Senior Compliance Officer at the U.S. Consumer Product Safety Commission. His presentation will cover common violations in U.S. toy safety requirements and mandatory standards.

Hello. My name is Joseph Tsai. I am a Senior Compliance Officer of US Consumer Product Safety Commission. Today I will use Mandarin to talk about the most frequent types of violation in US toy safety requirements and mandatory standards.

你好! 我名字叫 Joseph 蔡。我是美国消费品安全委员会的资深合规官员。今天, 我将用华语向大家说明美国玩具安全要求和强制性标准中最常见的违规类型。

### **Slide 8**

First, I want to explain the relevant requirements for children's products under FHSA and CPSA. 首先, 我先向各位解释联邦危险物质法和消费品安全法下的儿童用品之规定。

Next, I will briefly talk about CPSC's age grading method. 接着, 我要向各位简单地说明 CPSC 的年龄分级方法。

Then, I want to talk about the small parts requirements for children under 3 years of age. 然后, 我要向各位说明3岁以下儿童用品的小部件规定。

Next, I will explain toys and games' labeling requirements for children 3 years of age and above. 之后我要说明3岁以上儿童的玩具和游戏标签之规定。

After that, I want to talk about the Labeling of Hazardous Art Materials Act (LHAMA). 紧接着, 我要谈谈危险美术材料标签法。

Then, I will talk about the lead and phthalate requirements. 然后, 我要向各位说明铅和塑化剂的规定。

Afterwards, I want to talk about ASTM F963-17 Mandatory Standards (Toy Standards). 之后我要谈谈 ASTM F963-17 儿童玩具强制标准。

Finally, I will explain the tracking label, third party testing and certification, and periodic testing requirements.

最后, 我要向各位说明追踪标签, 第三方测试和认证, 以及定期测试的规定。

### **Slide 9**

The CPSC's jurisdictional authority is derived from the acts below. 消费品安全委员会的管辖权来自以下几个法案。

Small parts, labeling for toys and games, lead in paint, lead content, and art materials requirements are from FHSA. 小部件, 玩具和游戏的标签, 铅含量, 和美术材料的规定均来自联邦危险物质法 (FHSA) 。

Phthalates, ASTM F-963, tracking label, third party testing, certification, and periodic testing requirements come from the CPSA.

塑化剂, ASTM F-963, 追踪标签, 第三方测试, 认证, 以及定期测试的规定均来自消费品安全法 (CPSA)。

### **Slide 10**

Age labels should match the attributes of the toy with the abilities/behaviors of the child.

年龄标签应让玩具的属性与孩子的能力及行为相匹配。

When assigning an appropriate age range for a children's toy, we consider the factors below:

当我们在分析儿童产品的适当年龄层时, 我们考虑以下因素:

Whether the manufacturer's stated intent is reasonable

制造商对这个产品的陈述是不是合理的。

The advertising, promotion, & marketing of the products.

产品本身的广告, 促销, 和行销。

Whether the toy is commonly recognized as a product for the designated age group

产品所指定的适合儿童年龄是不是被一般民众所认可的。

### **Slide 11**

There are several requirements for children's products under FHSA. These are small parts, labeling for toys and games, lead content, lead in paints, and art materials.

在联邦危险物质法 (FHSA) 下的儿童用品之规定有小部件, 玩具和游戏的警告标签, 铅含量, 漆的铅含量, 以及美术材料。

### **Slide 12**

Toys and other articles for children under 3 years of age must not contain any small parts before and after use and abuse testing.

适用于3岁以下儿童的玩具和其他物品在测试前后不得包含任何小部件。

This is because small parts present a choking, aspiration, or ingestion hazard.

这是因为小部件有窒息, 误吸或吞食的危险。

Small parts are articles that fit into small parts cylinder.

小部件是可装入小部件圆筒的物品。

### **Slide 13**

This is a small parts test cylinder.

这是小部件圆筒。

Small parts can come in different shapes. Small parts that are spherical, ovoid, and ellipsoidal are more dangerous than fragments or irregularly shaped small parts.

小部件有不同的形状。球形, 卵形和椭圆形的小部件比碎片或不规则形状的小部件更危险。

#### **Slide 14**

Toys and games for children 3 years of age and above can have small parts, but a cautionary statement is required.

3岁及3岁以上儿童的玩具和游戏可以有小部件，但需要警告标签。

#### **Slide 15**

Different hazards need to have different cautionary statements.

不同的危害需要有不同的警告标签。

A product that contains small parts needs to have a small parts cautionary label.

有含小部件的产品需要有小部件警告标签。

A product that contains balloons needs to have a balloon cautionary label.

有气球的产品需要有气球警告标签。

If a product is a small ball, it needs to have a small ball cautionary label.

如果产品本身是小球,则产品需要有小球警告标签。

A product that contains a small ball needs to have a different small ball cautionary label.

如果产品带有小球,则产品需要有稍微不同的小球警告标签。

A product that is a marble needs to have a marble cautionary label.

如果产品本身是实心球,则产品需要有实心球警告标签。

Please note that the legal definition of a “marble” is a ball made from a hard material, such as glass, agate, or plastic.

请注意实心球的法律定义是用坚硬的材料制成的球，例如玻璃，玛瑙或塑料。

A product that contains marbles needs to have a different marble cautionary label.

如果产品带有实心球,则产品需要有稍微不同的实心球警告标签。

#### **Slide 16**

A product with multiple hazards needs to have multiple cautionary labels.

具有多种危害的产品需要具有多种警告标签。

Here we have a magnetic toy that has steel balls and small parts. Therefore, this product needs to have a marble warning label and small parts warning label.

这里我们有一个磁性玩具，它有钢球和小部件，因此它需要有实心球警告标签和小部件警告标签。

#### **Slide 17**

Now, I will talk about lead requirements.

关于铅要求

Lead content cannot exceed 100 ppm in children's products.

儿童产品的铅含量不能超过100 ppm。

Lead in paint cannot exceed 90 ppm for surface coating on children's products.

儿童产品表面涂层的铅含量不能超过 90 ppm。

The Commission has determined that certain materials will not contain lead, and therefore, do not require lead content testing. Examples of materials that do not contain lead are: wood, paper, most textiles and natural fibers (dyed and undyed), plant and animal-derived materials, and certain precious metals. A complete list of materials can be found at 16 CFR § 1500.91(d).

某些材料不含铅，因此不需要进行铅含量测试。这些不含铅的材料是：木材，纸张，大多数纺织品和天然纤维（染色的和未染色的），动植物来源的材料以及某些贵金属。完整的材料清单在16 C.F.R§1500.91（d）。

### **Slide 18**

The formulation of art materials must be assessed by a toxicologist for the potential to cause adverse chronic health effects.

美术材料的配方必须由毒理学家评估是否可能对健康有负面影响。

Art materials must be accompanied by a conformance statement "Conforms to ASTM D-4236".

美术材料须有 "Conforms to ASTM D-4236" 的符合声明。

### **Slide 19**

There are several requirements for children's products under the CPSA. These are requirements for phthalates,

ASTM F-963 Mandatory Standards (Toy Standards), tracking labels, third party testing, certification, and periodic testing.

在消费品安全法(CPSA)下的儿童用品之规定有塑化剂, ASTM F-963 儿童玩具强制标准, 追踪标签, 第三方测试以及认证。

### **Slide 20**

Phthalate requirements apply to children's toys and child care articles that facilitate sleeping or feeding, or that help with sucking or teething of a child 3 and younger.

塑化剂的规定适用于儿童玩具以及让3岁和3岁以下儿童方便入睡, 喂食或帮助其吮吸或出牙的用品。

There are 8 phthalates permanently banned by CPSC: DEHP, DBP, BBP, DINP, DIBP, DPENP, DHEXP, or DCHP. Each of these cannot exceed 0.1%.

被 CPSC 永久禁止的塑化剂有8个 (DEHP, DBP, BBP, DINP, DIBP, DPENP, DHEXP 或 DCHP), 其含量不可超过0.1%。

### **Slide 21**

Effective September 29, 2017, seven types of plastic do not require third party testing for compliance with phthalate requirements.

自2017年9月29日起，七种类型的塑料不需要第三方测试来证明其是否符合塑化剂的规定

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### **Slide 22**

The Commission has stated that it is unnecessary to test and certify materials that are known not to contain phthalates or to certify that phthalates are absent from materials that are known not to contain phthalates.

CPSC 已经表示，没有必要对已知不含塑化剂的材料进行测试和认证，也不必证明不含塑化剂的材料中没有塑化剂。

The following materials do not require testing for compliance with the prohibition on phthalates, provided that they have not been treated or adulterated by a substance that may contain phthalates: untreated/unfinished wood, metal, natural fibers; and natural latex and mineral products.

以下材料不需要经过塑化剂禁令的测试，前提是未经过可能含有塑化剂的物质的处理或掺假：未经处理/未加工的木材，金属，天然纤维；以及天然乳胶和矿物产品。

Additional examples of materials that do not require testing and certification include paper products (paper, paperboard, linerboard and medium, and pulp). See the Commission's Notice of Requirements [www.cpsc.gov/s3fs-public/pdfs/blk\\_pdf\\_tpphthal.pdf](http://www.cpsc.gov/s3fs-public/pdfs/blk_pdf_tpphthal.pdf)

其他不需要测试和认证的材料包括纸产品（纸，纸板，挂面纸板和介质以及纸浆）。请阅览 CPSC 的要求通知书 [www.cpsc.gov/s3fs-public/pdfs/blk\\_pdf\\_tpphthal.pdf](http://www.cpsc.gov/s3fs-public/pdfs/blk_pdf_tpphthal.pdf)

### **Slide 23**

All children's toys manufactured on or after February 28, 2018, must be tested and certified to the ASTM F963-17 mandatory standard.

在2018年2月28日或之后生产的所有儿童玩具必须符合 ASTM F963-17 的强制标准。

### **Slide 24**

There are many mandatory standards in ASTM F963-17. However, the most common violations are cords, straps, elastics in toys, projectile toys, battery-operated toys, magnets, accessible (sharp) points, toy gun markings, and toy with nearly spherical ends.

ASTM F963-17中有许多强制标准，但最常见的违规是有绳索，背带，和松紧带的玩具，弹射玩具，有电池的玩具，含磁铁的玩具，产生尖点的玩具，以及缺少玩具枪的橘红色标记。

### **Slide 25**

There are cords, straps, and elastics requirements for toys designated for children under 18 months of age. If the length of the cord, strap, or elastic is more than 12 inches long, then it cannot have beads or attachments at the end of the cord because it presents a strangulation hazard.

玩具的绳索，背带，松紧带要求是适用于给18个月以下儿童的玩具。玩具中的绳索，背带或松紧带的长度如果超过12英寸，则在绳的末端不可带有小珠或附属物。因为这存在着意外勒死的危险。

Projectile toys should not be able to discharge improvised projectiles, such as pencils, toothpicks, or steel balls.

弹射玩具不可射击简易即兴抛射物，例如铅笔，牙签或钢球。

### **Slide 26**

Another frequent violation is sharp points. This is especially true for toys that produce accessible sharp points after use and abuse testing.

另一个经常出现的违规是尖点。尤其是玩具在测试后产生尖点。

### **Slide 27**

Toy guns must have a blaze orange plug affixed to the muzzle end of the barrel. The plug shall not be recessed more than 0.25 inch from the muzzle end of the barrel, or

玩具枪枪管的枪口必须有长度至少0.25英寸的橙色栓子，或者

A blaze orange band covering the circumference of the muzzle end of the barrel for a length of at least 0.25 an inch.

枪管的枪口有长度至少0.25英寸的橙色圆形带。

### **Slide 28**

For toys intended for children up to the age of 18 months, nearly spherical, hemispherical, circular flared, or dome-shaped ends of toys or components of toys shall not be capable of penetrating the full depth of the cavity of the Supplemental Test Fixture (Figure 21 of the ASTM F963-17).

对于18岁以下儿童使用的玩具，其玩具或玩具组件的近球形，半球形，扩散圆形或圆顶形之端部不能穿透 ASTM F963-17 的辅助测试装置的整个深度（请查阅 ASTM F963-17 的图 21）。

### **Slide 29**

To prevent an accidental ingestion of batteries, toys that contain batteries must have a secured battery compartment.

为了防止儿童意外吞入电池，带有电池的玩具其电池仓不可轻易地被儿童被打开。

Magnetic toys cannot have magnets or magnetic components with a flux index equal to or higher than  $50 \text{ kG}^2 \text{ mm}^2$  and fit into a small parts cylinder before and after use and abuse testing.

如果含磁铁的玩具其磁铁或磁性部件在使用和滥用测试前后可装入小部件圆筒，则其磁通量指数不可超过  $50 \text{ kG}^2 \text{ mm}^2$ 。

### **Slide 30**

There are typically 4 types of toys that contain magnets: magnetic building sets, magnetic letters & numbers, magnetic fishing games, and magnetic stacking games.

含磁铁的玩具基本上有4种类型: 磁性建筑玩具, 磁性字母和数字, 磁性钓鱼玩具, 和磁性堆叠玩具。

In these magnetic toys, magnets are encased or embedded in wood or plastic.

在这些磁性玩具中, 磁铁都被包裹或嵌入在木头或塑料中。

### **Slide 31**

However, magnet sets are a particular kind of magnetic toy of special concern.

但是有一种需要特别关注的磁性玩具叫磁力珠, 俗称巴克球。

Magnet sets contains magnets (high-powered rare earth magnets) that are not embedded/encased in plastic or wood.

它有未嵌入/未包裹在塑料或木材中的裸露磁体 (大功率稀土磁体)。

The magnets are usually spherical with diameters between 3~5 mm and have a flux frequently over 50 kG<sup>2</sup> mm.<sup>2</sup>

它通常为球形, 直径在3~5 mm之间, 磁通指数经常超过50 kG<sup>2</sup> mm<sup>2</sup>。

They are frequently marketed as “stress relief toys,” “educational toys,” or “desk toys.”

它经常标记为“减压玩具”, “教育玩具”或“桌上玩具”。

### **Slide 32**

When these magnets are swallowed, they can link together inside a child’s intestines and clamp onto body tissues. The can cause intestinal obstructions, perforations, sepsis and death.

吞下这些磁铁后, 它们可以在孩子的肠道内连接在一起, 并夹在身体内部的组织上, 可引起肠梗阻, 穿孔, 败血症和死亡。

### **Slide 33**

We have collected all the global news reports concerning the ingestion of magnets from magnet sets. We discovered that 35 countries (orange areas) have reported such incidents.

在我们所收集的全世界有关于误食磁力珠玩具的新闻中, 我们发现目前全世界有35个国家(橙色部分)报道此不幸之事件。

### **Slide 34**

In our global data, we discovered that children ages 3 and below are the most vulnerable age groups for magnet set ingestion.

在我们所收集的全世界有关于误食磁力珠玩具的新闻报道中, 我们发现3岁至3岁以下的儿童是误食磁力珠年龄层最多的一群。

### **Slide 35**

We also discovered from global news reports that China has the most reported incidents concerning magnet set ingestions, followed by the United States.

此外在我们所收集的全世界有关于误食磁力珠玩具的新闻报道中,误食磁力珠事件以中国占的最多,其次是美国。

### **Slide 36**

Magnet set ingestion is not a new occurrence, but the frequency of incidents has increased in China

当然,误食磁力珠事件乃非近事,但两年来在中国发生的次数最多。

### **Slide 37**

Next, I want to talk about the tracking label requirements.

接下来我要谈谈追踪标签的规定。

The purpose of a tracking label is to improve recall effectiveness.

追踪标签的目的是为了促进产品召回效能。

What information does a tracking label need to have?

追踪标签的需要有什么信息?

The manufacturer or private labeler's name

制造商或标签商的名称

The product's location of production

产品生产地点

The product's date of production

产品生产日期

Any other information, such as model name or number, to ascertain the source of product

任何其他信息,例如 model名称 或 model编号,以确定产品来源

Tracking labels must be permanently affixed to the children's product and its packaging.

儿童产品及其包装上的追踪标签必须是永久性。

### **Slide 38**

Next, I want to talk about third party testing and certification requirements for children's products.

接下来我要说明儿童产品的第三方测试和认证规定。

The Consumer Product Safety Improvement Act of 2008 requires that each manufacturer must have children's products tested to the applicable requirements by a CPSC-accepted and accredited third-party testing laboratory.

2008年消费品安全改进法要求制造商必须将其儿童产品给美国消费品安全委员会认可的第三方检测机构按照适用的美国法规检验。

Manufacturers must also provide a Children's Product Certificate (CPC) based on passing test reports. This certificate must be provided to the retailer and/or distributor and accompany the shipment at the time of importation into the United States.

经过检验后,依第三方检测机构的检验报告提供一份儿童产品证书 (CPC)。儿童产品证书必须提供给零售商和/或分销商,并在报关(美国海关)时随附。

### **Slide 39**

CPSC-accepted labs can be found at: [www.cpsc.gov/labsearch](http://www.cpsc.gov/labsearch)

CPSC 所认可的检测机构可以在 CPSC 网站 [www.cpsc.gov/labsearch](http://www.cpsc.gov/labsearch) 上找到。

### **Slide 40**

What information is required in a CPC?

儿童产品证书须要有什么信息?

Identification of the product covered by the certificate.

产品名称。

Citation to each CPSC children's product safety rule to which the product is being certified.

列该产品所通过的每个CPSC儿童产品安全规则。

Identification of the importer or domestic manufacturer certifying compliance of the product: provide the name, full mailing address, and telephone number.

列签署该产品证书的进口商或(美国)国内制造商的名称,地址,和电话号码。

The contact information for the individual maintaining records of test results: provide the name, full mailing address, e-mail address, and telephone number of the person maintaining test records in support of the certification.

列检验报告持有者的联系信息:姓名,地址,email,和电话号码。

Date and place where the product was manufactured:

本产品的生产日期和其原产国及城市。

Provide the date(s) and place when/where the product was tested for compliance with the consumer product safety rule(s) cited above.

提供本产品检验的日期和地点。

Identify any third party, CPSC-accepted laboratory upon whose testing the certificate depends:

Provide the name, full mailing address, and telephone number of the laboratory.

提供检验本产品的 CPSC 认可之第三方检测机构的名称,地址和电话号码。

#### **Slide 41**

The CPSC website has several examples of CPCs. Please visit our website for more information.  
CPSC网址有多种儿童产品证书的范例。请来我们的网站看看。

#### **Slide 42**

Finally, I want talk about periodic testing requirements.  
最后, 我要说明定期测试的规定。

Testing with a CPSC-accepted lab is required every year unless:  
产品每年都需要通过CPSC认可的检验机构检验, 除非:

There is a production testing plan in place. In this case testing with an accredited CPSC-accepted lab can be done every 2 years, or  
有一个定期的生产测试计划, 在这种情况下, 可每两年让 CPSC 认可的检验机构检验, 或者

There is a continuous testing by a laboratory that is ISO/IEC 17025 accredited, in which case testing with a CPSC accepted lab can be done every 3 years.  
获得国际标准化组织/国际电工委员会 17025: 2005 (E) 标准所认证之检验机构 持续检验, 在这种情况下可被 CPSC 认可的检验机构每三年检验一次。

#### **Slide 43**

Who must comply with the periodic testing requirements?  
谁必须遵守定期测试规定?

The party responsible for providing a written Children's Product Certificate (CPC) must comply with the periodic testing requirements. For products manufactured domestically, the manufacturer is responsible. For products manufactured outside the United States, the importer is responsible.

负责提供儿童产品证书 (CPC) 的一方必须遵守定期测试规定。对于美国国产的产品, 则由制造商负责。对于在美国国外制造的产品, 则由进口商负责。

#### **Slide 44**

Next, let's look at a case study.  
接下来, 让我们来进行案例分析。

#### **Slide 45**

Which requirements apply?  
请问这个玩具需要遵守什么规定和标准?

This toy is for children age 19+ months.  
这个玩具是给孩子年龄19个月以上的。

It must comply with:  
它必须遵守

Small parts  
小部件

Lead content  
铅含量

Lead and other heavy metals surface coating  
铅与其他重金属表面涂层

Phthalates  
塑化剂

ASTM sound-producing toy  
ASTM 发声玩具

ASTM Battery operated toy  
有电池的玩具

Tracking label and certification  
追踪标签和认证

#### **Slide 46**

Which requirements apply to these toys?  
请问这个玩具需要遵守什么规定和标准?

The toy on the left is for children ages 19~35 months. It has 29 block pieces that do not fit into a small parts cylinder. 左侧的玩具适用于年龄19~35个月的孩子，它有29个较大的部件，这些部件无法装入小部件圆筒。

The toy on the right is for children ages 3+, and it has 102 small blocks that fit into a small parts cylinder. 右侧的玩具适用于年龄3年以上的孩子，它有共102个较小的部件，这些部件能装入小部件圆筒。

The toy on the left needs to be in compliance with the lead content, phthalates, small parts, tracking label, and certification requirements. 左侧的玩具需要遵守铅含量, 塑化剂, 小部件, 追踪标签, 以及认证规定。

The toy on the right needs to be in compliance with the small parts warning label, lead content, phthalates, tracking label, and certification requirements.

右侧的玩具需要遵守小部件警告标签, 铅含量, 塑化剂, 追踪标签, 以及认证规定。

#### **Slide 47**

Which requirements apply to this toy?

请问这个玩具需要遵守什么规定和标准?

This toy is for children ages 3 and above.

这个玩具适用于年龄3年以上的孩子。

This toy needs to be in compliance with the lead content, phthalates, ASTM F963 projectile toy, small parts warning label, tracking label, and certification requirements.

这个玩具需要遵守铅含量, 塑化剂, ASTM F963 弹射玩具, 小部件警告标签, 追踪标签, 以及认证规定。

#### **Slide 48**

Thank you, and we hope you enjoyed this podcast. If you have any questions on the presentation, please do not hesitate to submit your questions in English or Chinese to the mailbox mentioned earlier: [CPSCinChina@cpsc.gov](mailto:CPSCinChina@cpsc.gov). This mailbox is routinely monitored.

#### **Slides 49-53**

We also wish to remind viewers that CPSC has many technical documents and resources available in Chinese. At the conclusion of this presentation, we provide many links to resources viewers may find useful.

#### **Slides 54**

We encourage viewers to be sure to check out CPSC's Regulatory Robot, available in English, Chinese, and several other languages. The Regulatory Robot is an automated tool that can help identify safety requirements for many different types of products. Many companies have found this tool to be extremely helpful.

#### **Slide 55**

Thank you for downloading this presentation.