



## II. Present Situation:

### Cadmium

Cadmium is an odorless, silver-white, blue-tinged malleable metal or grayish-white powder that has been used for commercial purposes since the end of the 19th Century.<sup>1</sup> The earliest use of cadmium was in paint pigments.<sup>2</sup> After World War II, cadmium has generally been used in batteries, pigments, alloys, electroplating and coating, and stabilizers for plastics.<sup>3</sup> However, today, the predominant use of cadmium is for batteries.

Cadmium and cadmium compounds are known to be human carcinogens based on sufficient evidence of carcinogenicity in humans, indicated by studies showing a causal relationship between exposure to cadmium and cadmium compounds and human cancer.<sup>4</sup> The findings in studies conducted on humans are supported by studies involving experimental animals, which have demonstrated that multiple species of experimental animals' exposure to cadmium and cadmium compounds induced the formation of malignant tumors.<sup>5</sup>

Not only is cadmium cancer-causing, but it is also linked to other health problems. Breathing high levels of cadmium can severely damage the lungs and eating food or drinking water with very high levels of cadmium severely irritates the stomach, leading to vomiting and diarrhea.<sup>6</sup> In addition, long-term exposure to lower levels of cadmium in air, food, or water leads to a buildup of cadmium in the kidneys and possible kidney disease. Other long-term effects are lung damage and fragile bones.

The general population may be exposed to cadmium through consumption of food and drinking water, inhalation of air containing cadmium particles or cigarette smoke, or ingestion of contaminated soil and dust. Tobacco smokers are mainly exposed to cadmium through cigarettes, while nonsmokers' major source of cadmium is from food.<sup>7</sup>

A few studies in animals indicate that younger animals absorb more cadmium than adults.<sup>8</sup> Animal studies also indicate that the young are more susceptible than adults to a loss of bone and decreased bone strength from exposure to cadmium.<sup>9</sup>

The federal government recently increased the regulation of lead in children's toys under the Consumer Product Safety Improvement Act of 2008.<sup>10</sup> It has been reported that the increase in

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<sup>1</sup> National Toxicology Program within the U.S. Department of Health and Human Services; *11th Report on Carcinogen: Cadmium (CAS No. 7440-43-9) and Cadmium Compounds*; released on January 31, 2005; available at <http://ntp.niehs.nih.gov/ntp/roc/eleventh/profiles/s028cadm.pdf>.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

<sup>6</sup> Department of Health and Human Services' Agency for Toxic Substances & Disease Registry; *ToxFAQs for Cadmium*; September 2008; available at <http://www.atsdr.cdc.gov/tfacts5.html>.

<sup>7</sup> *Supra* fn. 1.

<sup>8</sup> *Supra* fn. 6.

<sup>9</sup> *Id.*

<sup>10</sup> 15 U.S.C. 2051, et seq.

regulation of lead has prompted some Chinese manufacturers to use cadmium instead of lead because cadmium is not as heavily regulated.<sup>11</sup>

### **Federal Regulation of Cadmium in Toys and Jewelry**

On January 13, 2010, a bill was introduced in the U.S. House of Representatives that would prohibit the manufacture, sale, and distribution of children's jewelry containing cadmium, barium, or antimony in the United States under the "Children's Toxic Metals Act."<sup>12</sup> The bill requires that any children's jewelry containing the heavy metals of cadmium, barium, or antimony shall be treated as a hazardous substance under the Federal Hazardous Substances Act.<sup>13</sup> Once enacted, the Children's Toxic Metals Act will apply to children's jewelry manufactured 90 days after the date of enactment. As of today, the bill has been referred to, but not heard in, the House Committee on Energy and Commerce.

The Standard Consumer Safety Specification for Toy Safety (ASTM<sup>14</sup> F963-07), became a mandatory consumer product safety standard on February 10, 2009, under the Consumer Product Safety Improvement Act.<sup>15</sup> This standard places limits on the amount of lead and other heavy metals, including cadmium, used in toys based on the soluble portion of that material using a specified extraction methodology given in the standard. It is not clear whether the regulation of cadmium under the Consumer Product Safety Improvement Act applies only to children's toys, or whether it also applies to jewelry or child care articles.

### **State Regulation of Cadmium in Toys**

The state of Washington regulates cadmium by prohibiting a manufacturer, wholesaler, or retailer from manufacturing, selling, offering for sale, distributing for sale, or distributing for use in Washington, a children's product or product component containing cadmium at more than .004 percent by weight (40 parts per million).<sup>16</sup>

California prohibits the manufacture, sale, exchange, possession with intent to sell or exchange, any toy contaminated with or coated with soluble compounds of antimony, arsenic, cadmium, mercury, selenium or barium.<sup>17</sup>

## **III. Effect of Proposed Changes:**

**Section 1** creates an undesignated section of Florida law to provide that a person, other than an individual consumer, commits a felony of the third degree if the person knowingly and

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<sup>11</sup> See the following news articles: CBS [News:Health](http://www.cbsnews.com/stories/2010/01/11/health/main6080353.shtml), *Toxic Cadmium Found in Chinese Toys*, available at <http://www.cbsnews.com/stories/2010/01/11/health/main6080353.shtml>; MSNBC, *Popular kids' trinkets loaded with toxic metal*, available at [http://www.msnbc.msn.com/id/34793600/ns/health-kids\\_and\\_parenting/](http://www.msnbc.msn.com/id/34793600/ns/health-kids_and_parenting/), and FoxNews.com, *Feds Probe Cadmium in Kids' Jewelry From China*, available at <http://www.foxnews.com/us/2010/01/11/feds-probe-cadmium-kids-jewelry-china/>.

<sup>12</sup> See H.R. 4428.

<sup>13</sup> 15 U.S.C. 1261, et seq. (Federal Hazardous Substances Act).

<sup>14</sup> American Society for Testing and Materials.

<sup>15</sup> U.S. Consumer Product Safety Commission, *Consumer Product Safety Improvement Act: FAQs For Section 101: Children's Products Containing Lead; Lead Paint Rule*, available at <http://www.cpsc.gov/about/cpsia/faq/101faq.html>. See also, 15 U.S.C. 2056.

<sup>16</sup> West's RCWA 70.240.020.

<sup>17</sup> West's Ann.Cal.Health & Safety Code § 108555.

intentionally uses or applies cadmium in excess of 75 parts per million (ppm) on the surface or underlying material of a child's jewelry, toy, or child care article sold in Florida.<sup>18</sup>

The term "child care article" is defined in the bill as products designed or intended by the manufacturer to facilitate the sleep, relaxation, or feeding of a child or to help a child with sucking or teething. The bill defines "child" as an individual who is 7 years of age or younger.<sup>19</sup>

The bill's restriction on the use or application of cadmium does not apply to collectible toys not marketed or intended to be used for play by a child younger than 14 years of age.

The content amount of cadmium is to be determined through solubility testing for heavy metals as defined in the ASTM International Safety Specification on Toy Safety, ASTM standard F-963. The American Society for Testing and Materials (ASTM) International is an international standards organization.<sup>20</sup> The ASTM develops voluntary standards for materials, products, systems, and services.<sup>21</sup> The ASTM standards guide design, manufacturing, and trade in the global economy.<sup>22</sup> The Consumer Product Safety Improvement Act of 2008 requires ASTM F-963 to be considered the consumer product safety standards issued by the U.S. Consumer Product Safety Commission under s. 9 of the Consumer Product Safety Act (15 U.S.C. 2058).

**Section 2** provides an effective date of July 1, 2010.

#### **IV. Constitutional Issues:**

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

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<sup>18</sup> A third degree felony is punishable by potential imprisonment not exceeding 5 years and/or a potential fine not exceeding \$5,000.

<sup>19</sup> The Consumer Product Safety Improvement Act defines the term "children's toy" as a consumer product designed or intended by the manufacturer for a child 12 years of age or younger for use by the child when the child plays and "child care article" is defined as a consumer product designed or intended by the manufacturer to facilitate sleep or the feeding of children age 3 and younger, or to help such children with sucking or teething. *See* 15 U.S.C. 2057(e)(1)(B) and 15 U.S.C. 2052.

<sup>20</sup> ASTM International, *About ASTM International*, available at <http://www.astm.org/ABOUT/aboutASTM.html>.

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

**D. Other Constitutional Issues:****Commerce Clause**

The U.S. Supreme Court has interpreted that because there is an express provision in the U.S. Constitution under art. I § 8, cl. 3, granting Congress the authority to regulate commerce among the states, it also implicitly restricts the power of the states to affect commerce, creating a “Dormant Commerce Clause.”<sup>23</sup>

Under the Dormant Commerce Clause, if a state regulates commerce so that it does not discriminate against another state, the statute carries out a legitimate local public interest, and the statute only has an incidental effect on interstate commerce, the regulation will be upheld, unless the burden imposed on commerce is clearly excessive in relation to the benefits the statute promotes.<sup>24</sup> Essentially, the courts conduct a balancing test and consider (1) the extent of the burden on interstate commerce, (2) the legitimacy of the state’s interests involved, and (3) whether reasonable, non-discriminatory alternatives are available to address the state’s interests.<sup>25</sup>

Should the courts find the law meets this balancing test, it is likely to be upheld.

**Supremacy Clause**

The Supremacy Clause of the Constitution under art. VI, cl. 2, provides that the laws of the United States “shall be the supreme Law of the Land...” Federal law supersedes state law when Congress expressly preempts state law or establishes a comprehensive regulatory scheme over an area, removing the entire field from state regulation.<sup>26</sup> Implied preemption also occurs when state law directly conflicts with federal law or interferes with the achievement of federal objectives.<sup>27</sup>

Generally, there is a presumption against the preemption of state laws.<sup>28</sup> Courts will interpret a preemption clause narrowly to avoid encroachment upon the authority of the states, especially in areas of health and safety, under which states have traditionally been within their police powers.<sup>29</sup>

The U.S. Consumer Product Safety Commission, which was established to examine methods of protecting consumers against unreasonable risks of injury from household products, regulates safety standards for toxic substances in toys.<sup>30</sup>

The Consumer Product Safety Improvement Act contains an express preemption clause,<sup>31</sup> which provides that a state or political subdivision of a state regulating the safety

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<sup>23</sup> *Alliant Energy Corporation v. Bie*, 330 F.3d 904 (7th Cir. 2003).

<sup>24</sup> *Pike v. Bruce Church, Inc.*, 397 U.S. 137,142 (1970).

<sup>25</sup> *Id.*

<sup>26</sup> *Colon v. Bic U.S.A., Inc.*, 136 F.Supp.2d 196, 201 (S.D.N.Y. 2000)(citing *English v. General Elec. Co.*, 496 U.S. 72, 78-79 (1990)).

<sup>27</sup> *Id.* at 201.

<sup>28</sup> See 14 A.L.R. Fed. 2d 501.

<sup>29</sup> See 14 A.L.R. Fed. 2d 501, §3.

<sup>30</sup> *Supra* fn. 15.

standards of toys is preempted. However, a state may apply for an exemption from preemption and such an exemption may be granted if the state or political subdivision “provides a significantly higher degree of protection” from the risk of injury than the federal requirement and that the state requirement does not “unduly burden interstate commerce.”<sup>32</sup> A state does not have standing to seek an exemption until a state demonstrates to the CPSC that the state requirement has been enacted.<sup>33</sup>

An implied preemption claim may be made alleging that the federal government exclusively occupies the field of regulation concerning the safety of toys. Furthermore, an implied preemption claim may be made claiming that the proposed state regulation conflicts with the purpose of the federal regulation.

**V. Fiscal Impact Statement:**

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

Manufacturers using a prohibited amount of cadmium may be subject to criminal penalties. Manufacturers may incur costs associated with stopping the manufacture of goods that exceed the bill’s standard for cadmium content.

C. Government Sector Impact:

According to the Criminal Justice Impact Conference, the bill will result in an insignificant prison bed impact because it is a low volume crime and it is an unranked third degree felony.

**VI. Technical Deficiencies:**

None.

**VII. Related Issues:**

None.

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<sup>31</sup> The preemption clause in the Consumer Product Safety Improvement Act of 2008 cites to the preemption clause in s. 26(a) of the Consumer Product Safety Act.

<sup>32</sup> See 14 A.L.R. Fed. 2d 501 for an explanation of the state exemption available under 15 U.S.C. 2075(c). See 16 C.F.R. §§ 1061.1-12 for exemption application requirements.

<sup>33</sup> See 16 C.F.R. § 1061.4(a)(1).

**VIII. Additional Information:**

- A. **Committee Substitute – Statement of Substantial Changes:**  
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

**CS by the Commerce Committee on April 7, 2010:**

This CS differs from the bill in that it revises the definition for “consumer” and “child” and deletes the provisions imposing civil penalties.

- B. **Amendments:**

None.