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Toxic Sweatshops: Regulating the Import of Hazardous Electronics

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TOXIC SWEATSHOPS: REGULATING THE IMPORT OF HAZARDOUS ELECTRONICS

Allie Robbins[†]

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INTRODUCTION

The rise in consumer use of personal electronic devices has led to a boon in electronics manufacturing worldwide. Along with the expansion of production have come serious questions about the safety of production processes, as large numbers of workers and their children have fallen ill. This article proposes that the United States create an Electronics Import Safety Commission, similar to the Consumer Protection Safety Commission (CPSC), to regulate the import of electronic devices and make sure that both workers and consumers are safe.

In Part I, I outline some of the health concerns that have arisen in the global electronics-manufacturing sector. Part II provides a brief overview of the global electronics supply chain, while Part III explores some of the ways that the United States currently regulates global production. In Part IV, I detail key aspects of the CPSC and the Consumer Product Safety Improvement Act of 2008 (CPSIA). I propose that the CPSC serve as a model for the development of the Electronics Import Safety Commission.

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I. HEALTH CONCERNS IN ELECTRONICS MANUFACTURING

A lot has been written recently about the increasing use of electronic devices by infants and toddlers, and the concern that this use might negatively impact their brain development.¹ The American Academy of Pediatrics's most recent policy statement on the topic discourages screen media exposure for children less than two years of age.² Little attention has been paid, however, to potential long-term health effects of manufacturing those electronic devices. Even less attention has been paid to the health of the children of those workers. "The issue of reproductive toxicity, when children fall ill because of the accumulation of various toxic compounds over a long period in their parents' bodies, has not surfaced very often because many parents blame themselves and keep their children's condition hidden."³ Yet the issue is very real and quite serious. Many individuals who have labored in semiconductor factories have experienced not only death and long-term illness themselves, but have also suffered "infertility and miscarriages."⁴ Those who are able to conceive sometimes give birth to children with chronic debilitating illness.⁵ It is critical that we pay attention to these members of the electronic device revolution as well.

While little has been done to address reproductive toxicity, slow but important progress is being made in addressing the health and safety concerns of workers who work in electronics manufacturing plants. On April 21, 2014, "the ninth civil division of Seoul High Court . . . ruled . . . that the leukemia claimed the lives of former Samsung Electronic semiconductor plant workers Hwang Yu-mi and Lee Sook-young constituted an industrial accident," ending years of legal battles over Samsung's complicity in the

¹ See e.g., JuJu Chang, Christine Rakowsky & Daniel Clark, *Toddlers and Tablets: Way of the Future?*, ABC NEWS, (June 5, 2013), <http://abcnews.go.com/Technology/toddlers-tablets-future/story?id=19332916>; Elise Hu, *What You Need to Know About Babies, Toddlers and Screen Time*, NPR, (Oct. 28, 2013, 12:47 PM), <http://www.npr.org/blogs/alltechconsidered/2013/10/29/228125739/what-to-know-about-babies-and-screen-time-kids-screens-electronics>.

² American Academy of Pediatrics, *Policy Statement: Children, Adolescents, and the Media*, 132 PEDIATRICS, No.5 Nov. 2013 at 959, <http://pediatrics.aappublications.org/content/early/2013/10/24/peds.2013-2656.full.pdfhtml>.

³ Sungyoon-Won, *Samsung's Devastating Secret: The Tears of 'Semiconductor Children*, HUFFINGTON POST KOREA, (updated Dec. 12, 2014, 8:59 PM), http://www.huffingtonpost.com/2014/12/01/samsung-semiconductor-children_n_6200380.html, archived at <http://perma.cc/CB3D-B63Q>.

⁴ *Id.*

⁵ *Id.*

deaths of these two young women.⁶ “The court acknowledged that they had been exposed to benzene and ionizing radiation, both known causes of leukemia.”⁷ “The court also acknowledged the possibility of ‘partial exposure to harmful substances’ for the three other victims, but did not recognize their diseases as industrial accidents.”⁸ This case led to an unprecedented “public apology to workers who contracted rare cancers linked to chemicals at its semiconductor plants and to the surviving family members.”⁹ “The company’s statement fell shy of accepting a connection between some of the diseases, including leukemia, and carcinogens used in its plans, a link Samsung has always denied.”¹⁰ The apology did state, however, that “Samsung would make ‘appropriate compensation to those who were affected and their families.’”¹¹ On January 16, 2015, Samsung announced that it would “compensate all former workers who contracted leukemia and other diseases after working at its display and semiconductor facilities.”¹² In a huge breakthrough for workers who have become ill with leukemia, Samsung Electronics’s chief negotiator Baek Soo-hyun stated, “Samsung workers who left two decades ago could be compensated, while those who left a decade after the illnesses developed would also be included for monetary compensation.”¹³

This game-changing judicial decision, and Samsung’s apology, come after a series of battles with former employees who suffered (and often died) from debilitating diseases. On December 14, 2012, for example, the South Korean government formally acknowledged a connection between an employee developing breast cancer and her work at a Samsung electronics factory.¹⁴ “The Ko-

⁶ Kim Min-kyung & Lee Jung-ae, *Another Court Recognizes Samsung’s Complicity in Leukemia Cases*, THE HANKYOREH (Aug. 22, 2014), http://www.hani.co.kr/arti/english_edition/e_national/652335.html, archived at <http://perma.cc/SS6V-TB42>.

⁷ *Id.*

⁸ *Id.*

⁹ Cam Simpson, *In Samsung’s War at Home, an Apology to Cancer-Stricken Workers*, BLOOMBERG BUSINESSWEEK (May 14, 2014), <http://www.businessweek.com/articles/2014-05-14/in-samsungs-war-at-home-an-apology-to-cancer-stricken-workers>, archived at <http://perma.cc/M9E2-ULZ3>.

¹⁰ *Id.*

¹¹ Rick McCormick, *Samsung Offers ‘Deep Apology’ and Compensation to Workers Who’ve Contracted Incurable Diseases*, THE VERGE, May 14, 2014, <http://www.theverge.com/2014/5/14/5716064/samsung-offers-apology-and-compensation-to-workers-who-got-leukemia>.

¹² Kim Yoo-chul, *Samsung to Compensate All Leukemia-Stricken Workers*, THE KOREA TIMES (Jan. 16, 2015), http://m.koreatimes.co.kr/phone/news/view.jsp?req_newsidx=171849, archived at <http://perma.cc/WZ6Z-2P4W>.

¹³ *Id.*

¹⁴ Youkyung Kee, *SKorea Says Samsung Chip Plant Caused Cancer*, THE ASSOCIATED

rea Workers' Compensation and Welfare Service, which is part of the labor ministry, ruled . . . that there was a 'considerable causal relationship' between the woman's cancer and her five years of work at a semiconductor plant near Seoul.¹⁵ The woman, who passed away at age thirty-six after a three-year battle with breast cancer, was exposed to organic solvents and radiation.¹⁶ The woman's family was compensated, only the second time that a causal connection between working conditions at Samsung factories and illness on the part of Samsung employees was formally recognized by the South Korean government.¹⁷ In April 2012, the South Korean Ministry of Employment and Labor also recognized a connection between a case of aplastic anemia and the employee's work at a Samsung semiconductor plant.¹⁸

While these cases illustrate some progress for the legal rights of Samsung's factory workers in Korea, jobs in electronics factories worldwide remain extremely dangerous. The vast majority of the workers described above died from their illnesses before receiving any government recourse. No laws have been changed mandating an alteration of production processes as a result of these rulings, and no preventative measures have been put in place to ensure that workers are no longer exposed to the chemicals that are causing these fatal injuries.

This is not a problem that is unique to Samsung, or to electronics manufacturing facilities in Korea. In factories run by Pegatron in China, which produces the iPhone 6 for Apple, for example, "masks for workers working with chemicals are not provided."¹⁹ Additionally, "workers suffered from skin peeling, blisters, and skin allergy in their hands . . . [and] the shop floor [is] a closed environment where fresh air cannot flow in."²⁰ While Pega-

PRESS (Dec.14, 2012), <http://bigstory.ap.org/article/skorea-says-samsung-chip-plant-caused-cancer>, archived at <http://perma.cc/5Z4Y-AYYG>.

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Statement of SHARPS [Supporters for the Health and Rights of People in the Semiconductor Industry] Hailing KCOMWEL's First Recognition of Workers' Compensation of a Samsung Worker Victim, on April 10, 2012*, STOP SAMSUNG, Apr. 28, 2012, <http://stopsamsung.wordpress.com/2012/04/28/statement-of-sharps-hailing-kcomwels-first-recognition-of-workers-compensation-of-a-samsung-worker-victim-on-april-10-2012/>, archived at <http://perma.cc/4ZPC-X4US>.

¹⁹ STUDENTS AND SCHOLARS AGAINST CORPORATE MISBEHAVIOUR, *THE LIVES OF iSLAVES: REPORT ON WORKING CONDITIONS AT APPLE'S SUPPLIER PEGATRON 3* (2014), available at <http://sacom.hk/wp-content/uploads/2014/09/SACOM-The-Lives-of-iSlaves-Pegatron-20140918.pdf>, archived at <http://perma.cc/V36L-CEXG>.

²⁰ *Id.* at 11.

tron has arranged for workers in high-risk positions to receive annual medical checkups, “workers have never been informed of the results” of those checkups.²¹ These working conditions are not unique, and they have had disastrous results. Pegatron recently paid \$12,800 to the family of an iPhone 6 manufacturer after he was literally worked to death.²² “In March 2010, China’s State Administration for Workplace Safety (SAWS) confirmed that 47 workers at the United Win cell phone plant in Suzhou, China, had been hospitalized in the last year for n-hexane poisonings resulting in peripheral neuropathies, severe muscle atrophy and long-term disabilities.”²³ “By the end of May 2010, at least 49 young semiconductor workers had contracted cancer—including 32 brain, leukemia, and lymphoma cancers—while working at Samsung’s huge electronics plants throughout Korea. Nineteen deaths have occurred, mostly to workers in their 20s.”²⁴ Similar conditions exist in electronics factories throughout Asia, where hazardous chemicals are used in the production of cell phones, digital cameras, and other electronic devices.²⁵ According to the Environmental Protection Agency, “[m]ost electronic devices contain a printed wiring board and battery, and these and other components may contain hazardous materials such as lead, mercury, hexavalent chromium, arsenic, beryllium, nickel, zinc, copper, cadmium, and flame retardants.”²⁶ Workers who are repeatedly exposed to large quantities of these hazardous chemicals are particularly at risk, especially when they are not provided with proper training or safety equipment.

II. THE GLOBAL ELECTRONICS SUPPLY CHAIN

According to the United Nations, between 2010 and 2011,

²¹ *Id.* at 3.

²² Philip Elmer-DeWitt, *Apple Supplier Pays \$12,800 to Family of Dead iPhone 6 Worker*, FORTUNE, Mar. 11, 2015, <https://fortune.com/2015/03/11/apple-supplier-pays-12800-to-family-of-dead-iphone-6-worker/>, archived at <https://perma.cc/2382-7TJZ>.

²³ Garrett Brown, *Global Electronics Factories In Spotlight*, OCCUPATIONAL SAFETY AND HEALTH, Aug. 4, 2010, http://ohsonline.com/articles/2010/08/04/global-electronics-factories-in-spotlight.aspx?sc_lang=en, archived at <http://perma.cc/8GM3-KAKJ>.

²⁴ *Id.*

²⁵ See e.g., Anna Kakuli & Irene Schipper, *Out of Focus: Labour Rights in Vietnam’s Digital Camera Factories*, SOMO – CTR. FOR RESEARCH ON MULTINATIONAL CORPORATIONS 29-30 (Nov. 2011), http://somo.nl/publications-en/Publication_3720, archived at <http://perma.cc/SCX4-UQTZ>.

²⁶ U.S. ENVTL. PROT. AGENCY, Report No. 2004-P-00028, MULTIPLE ACTIONS TAKEN TO ADDRESS ELECTRONIC WASTE, BUT EPA NEEDS TO PROVIDE CLEAR NATIONAL DIRECTION, U.S. ENVTL. PROT. AGENCY 2 (Sept. 1, 2004), <http://www.epa.gov/oig/reports/2004/20040901-2004-P-00028.pdf>, archived at <http://perma.cc/3BJ5-RM6D>.

there were six billion cell phone subscriptions in the world; approximately six hundred million of them were in the developing world.²⁷ Cell phones represent only one component of the electronics market, and in order to meet this high demand electronics factories have emerged worldwide, with high concentrations in East and South Asia. The dramatically increased production of cell phones, tablets, and other electronic devices in recent years has added a layer of danger on an already exploitative global supply chain system that prioritizes low prices over worker safety and health. Following the model of other global supply chain industries, such as the apparel industry, the electronics industry spreads its manufacturing worldwide and major companies outsource manufacturing to contract manufacturers whose names consumers do not recognize.²⁸ Also similar to other industries, the electronics global supply chain lacks meaningful oversight and monitoring, meaning that brands and retailers have little knowledge of what happens inside the factories that supply their goods.²⁹

Not everything about electronics manufacturing mirrors other global supply chains, however. “The electronics industry added its own special twist to sweatshop manufacturing—the introduction of mass, temporary-help agency work forces, the most precarious and least-paid form of employment [For example, t]he Mexican electronics industry centered in Guadalajara now consists of 55 percent to 60 percent temporary help agency employees, or some 240,000 workers employed by 60 different temporary agencies. These ‘perma-temp’ workers have low pay and virtually no benefits, and, of course, do not work for any of the global electronics giants whose products they make.”³⁰ Similarly, a report on mobile phone manufacturing in India found that most workers were trainees or contract workers.³¹ Workers are often kept as contract workers for

²⁷ MEASURING THE INFORMATION SOCIETY 2012, INT’L TELECOMM. UNION 2 (2012), http://www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2012/MIS2012_without_Annex_4.pdf.

²⁸ Garrett Brown, *Global Electronics Industry: Poster Child of 21st Century Sweatshops and Despoiler of the Environment?*, EHS TODAY (Sept. 1, 2009), <http://ehstoday.com/safety/news/global-electronics-industry-sweatshops-environment-1063>, archived at <http://perma.cc/SG7S-XSQP>.

²⁹ Steven Greenhouse, *Documents Reveal New Details About Walmart’s Connection to Tazreen Factory Fire*, N.Y. TIMES (Dec. 10, 2012), http://www.nytimes.com/2012/12/11/world/asia/tazreen-factory-used-by-2nd-walmart-supplier-at-time-of-fire.html?_r=0.

³⁰ Brown, *supra* note 29.

³¹ Anibel Ferus-Comelo & Päivi Pöyhönen, *Phone Equality: Labour Standards of Mobile Phone Manufacturers in India*, SOMO – CTR. FOR RESEARCH ON MULTINATIONAL CORPORATIONS 24 (2011), http://somo.nl/publications-en/Publication_3697, archived at <http://perma.cc/B2R3-XBLS>.

a couple of years, receiving lower wages than permanent employees and having no job security.³² Even where electronics brands such as Apple proclaim to be improving conditions in their supplier factories, employees in those factories have not generally substantiated those claims.³³ This additional twist on sweatshop labor is particularly troubling because workers on short-term contracts are less likely to speak up about unsafe working conditions out of fear that their contract will not be renewed and are often not afforded the same legal protections as “permanent” workers.

Unions are practically unheard of in electronics manufacturing and workers work long hours exposed to toxic chemicals with little recourse. The vast and oblique nature of the global electronics supply chain makes it nearly impossible for U.S. consumers to know who is making the electronics they purchase, what that production process is like, and how those workers are treated.³⁴ Consequently, consumers unwittingly purchase goods that cause fatal illness to the people who manufacture them. In addition, consumers have little idea of the dangerous chemicals that are in the products they purchase and the potential health consequences they face from regular use of those products.

Voluntary adoption of production standards and codes of conduct has not succeeded in the apparel industry,³⁵ and has not thus far successfully improved conditions for workers in the electronics industry either. As multinational corporations engaged in global supply chain production continue to disregard the health and well being of their workforce, protection of worker rights must be sought through greater regulation by importing countries such as the United States. While the only way to fully ensure that the rights of workers are respected is for those workers to form a union and represent their own interests,³⁶ regulation of imports into the United States by the federal government has the potential to make it easier for supply chain workers to organize without fear of losing their jobs, and makes it more likely that multinational corporations

³² *Id.*

³³ See e.g., Scott Nova & Isaac Shapiro, *NYT Story Emphasizes Apple's Positive Statements, Obscures Ongoing Labor Abuses*, ECON. POLICY INST. BLOG (Jan. 9, 2013, 1:53 PM), <http://www.epi.org/blog/new-york-times-apple-statements-labor-abuses/>, archived at <http://perma.cc/RR8Y-6SG7>.

³⁴ See *infra* Section IV-A.

³⁵ See e.g., Allie Robbins, *Could Sourcing from Union Shops Be Against the Law?*, 5 ORIGINAL L. REV. 46 (2009).

³⁶ Carolyn Butler, *Bangladesh: 17 Garment Fires Since 112 Killed in Tazreen*, SOLIDARITY CENTER (Dec. 21, 2012), <http://www.solidaritycenter.org/bangladesh-17-garment-fires-since-112-killed-in-tazreen/>, archived at <http://perma.cc/BNH9-YHNT>.

will pay close attention to working conditions in their supplier factories. The current production environment is dominated by major multinational corporations whose singular goal is to get the most production for the lowest price. Implementing import-side regulations will force corporations to prioritize the health and safety of the employees in their supply chain, or risk not being permitted to import their goods into the United States.

III. REGULATION OF GLOBAL PRODUCTION BY THE UNITED STATES

Generally, the United States plays an extremely limited role in regulating working conditions in other countries. Even where production is primarily destined for import into the United States, the federal government does not commonly inspect conditions in supplier factories. The United States government does, however, closely monitor production in specific industries, and has the power to regulate electronics manufacturing as well.

When it comes to food production, for example, the United States Department of Agriculture (USDA) conducts on-site inspections of meat and poultry plants worldwide.³⁷ The USDA only permits imported meat, poultry, and egg products from countries they “deem eligible, and only from establishments certified by the foreign government.”³⁸ Further, the United States Food and Drug Administration’s (FDA) “Hazard Analysis and Critical Control Point (HACCP) programs governing food safety compel firms to assess food-safety hazards and to identify points in the production process at which they can be eliminated, minimized, or reduced to an acceptable level. They also establish procedures to measure and address risks at those points through corrective action.”³⁹ The FDA also inspects drug-manufacturing facilities and conducts quality control inspections of those facilities.⁴⁰ These regulations were put in place largely because the U.S. corporations that profit from this production, similar to companies in other sectors that rely on the global supply chain such as the apparel and electronics industries, were unable to ensure the safety of the U.S. consumer. “U.S. partners have, in general, performed poorly as ‘regulators’ of foreign activities U.S. food and drug companies sometimes do not know the identity of some of their suppliers, let alone participate in

³⁷ Kenneth A. Bamberger & Andrew T. Guzman, *Keeping Imports Safe: A Proposal for Discriminatory Regulation of International Trade*, 96 CALIF. L. REV. 1405, 1414-15 (2008).

³⁸ *Id.* at 1422.

³⁹ *Id.* at 1414-15.

⁴⁰ *Id.* at 1415.

comprehensive monitoring and oversight.”⁴¹ Multinational corporations engaged in electronics manufacturing have the same weaknesses. This lack of control is purposefully built into the supply chain model in order to shelter companies from liability and public outrage in the event that faulty products or oppressive working conditions are discovered.

Given the vastness of the electronics supply chain, a system of inspection by an agency of the United States government may be unrealistic. What is certainly plausible, however, is regulating the import of the goods themselves. This would put the onus on the multinational corporations and their partners throughout the supply chain to ensure compliance with import guidelines. Such a model has already proved successful through regulations governing the permissible lead and phthalates content of children’s products under the Consumer Product Safety Improvement Act of 2008,⁴² and could be adapted to electronics manufacturing. Similar to the Consumer Product Safety Commission, which was created in 1972 when Congress passed the Consumer Product Safety Act,⁴³ and strengthened by the Consumer Product Safety Improvement Act of 2008, a federal agency should be set up to regulate and monitor the import of electronic devices and components. The agency could be called the Electronics Import Safety Commission, and could focus on ensuring that the health and safety of individuals manufacturing the goods is protected. If safety is made a top priority during the manufacturing process, the products are more likely to be safe for consumer use as well.

IV. CONSUMER PRODUCT SAFETY IMPROVEMENT ACT

The Consumer Product Safety Improvement Act was signed into law largely in response to a series of recalls of tainted food and children’s toys that contained unacceptably high levels of lead.⁴⁴ Congress wanted to ensure that the products imported into the United States and used by U.S. consumers were safe enough for their intended uses. The CPSIA contains several provisions that could be translated to the import of electronic devices to help en-

⁴¹ *Id.* at 1430.

⁴² Consumer Product Safety Improvement Act, Pub. L. No. 110-314 (codified in sections of 15 U.S.C.).

⁴³ Michele Boyer, *Consumer Product Safety Commission CPSC History*, US RECALL NEWS, <http://www.usrecallnews.com/us-consumer-product-safety-commission-cpsc/> (last visited Apr. 27 2015), archived at <http://perma.cc/Z7KV-KXBF>.

⁴⁴ Eileen Flaherty, *Safety First: The Consumer Product Safety Improvement Act of 2008*, 21 LOY. CONSUMER L. REV. 372, 380-84 (2009).

sure that products whose manufacture makes employees fatally ill would not be allowed to enter the U.S. marketplace.

The CPSIA can be used as a model to create similar legislation regulating the import of electronic devices and components. The current production methods used to manufacture these devices have proven extremely harmful to the individuals working in electronics factories.⁴⁵ Consumers of these products have a duty to do what they can to protect the workers who produce them. Lobbying the United States government to create import regulations that protect the life and health of the workers, and an Electronics Import Safety Commission to enforce those regulations, is an important step. The increased use of such devices may also be hazardous to the health of consumers,⁴⁶ and thus consumers have an added incentive to push for such regulation. This section will explore several provisions of the CPSIA and their potential for replication in the electronics industry.

A. *Product Tracking*

Section 103 of the CPSIA requires that all children's products covered under the Act be affixed with a tracking label.⁴⁷ The label must include "(A) the manufacturer to ascertain the location and date of production of the product, cohort information (including the batch, run number, or other identifying characteristic), and any other information determined by the manufacturer to facilitate ascertaining the specific source of the product by reference to those marks; and (B) the ultimate purchaser to ascertain the manufacturer or private labeler, location and date of production of the product, and cohort information (including the batch, run number, or other identifying characteristic)."⁴⁸ The purpose of this provision was to aid in the recall of non-compliant products, should such a recall be necessary. A 2011 amendment relaxed these requirements somewhat by creating exceptions, but the core mandate still remains.⁴⁹

One of the primary obstacles to holding major corporations

⁴⁵ See *infra* Section I.

⁴⁶ See e.g., *Cell Phones and Cancer Risk*, NAT'L CANCER INST. AT THE NAT'L INSTITUTES OF HEALTH (June 24, 2013), <http://www.cancer.gov/cancertopics/factsheet/Risk/cellphones> (last visited Dec. 27, 2012), archived at <http://perma.cc/3UTW-AULJ>.

⁴⁷ 15 U.S.C. § 103.

⁴⁸ *Id.*

⁴⁹ Beveridge & Diamond PC, *Congress Fixes Problems in Consumer Product Safety Improvement Act*, BDLAW.COM (Sept. 2, 2011), <http://www.bdlaw.com/news-1194.html>, archived at <http://perma.cc/U5ME-NJUQ>.

accountable for the conditions in their supplier factories is that the supply chain is such a vast and complicated web of contractors and subcontractors that it is nearly impossible to know which companies are producing in which factories at any given time.⁵⁰ Presently all items imported into the United States, including electronic devices, are required to include a country of origin label,⁵¹ but this does little to actually pinpoint the location of manufacture. Rarely do the multinational brands with whom consumers are familiar own their own production facilities. The general practice is to hire contractors who place orders in factories owned by smaller corporations. These factories receive orders from several companies and often produce for different brands simultaneously. When catastrophes occur or abuses are uncovered, corporations claim plausible deniability.⁵² They state either that they had no idea their goods were being produced in that specific factory or that they have no control over conditions in supplier factories and thus no responsibility. The difficulty in determining which corporations are utilizing which supplier factories at any given time, and the short production cycles utilized by the major corporations so that they are only producing in a particular factory for a few months at a time, has made it very difficult to track corporate use of supplier factories. Electronics brands still refuse to disclose the names and locations of their supplier factories, arguing that they fear the release of trade secrets, despite the apparel industry losing this same argument nearly a decade ago.⁵³

Requiring companies to place tracking labels on each component and device they produce would make each item instantly traceable. Corporations would no longer be able to claim that they did not know whether or not their goods were produced in a specific factory. Mandating tracking labels would go a long way towards increasing accountability and providing corporations with an incentive to ensure that conditions in their supplier factories meet baseline health and safety standards. If corporations knew that consumers could easily trace the components of their electronic devices back through the entirety of the production cycle, it would

⁵⁰ Greenhouse, *supra* note 30.

⁵¹ 19 C.F.R. § 134.11.

⁵² See, e.g., Greenhouse, *supra* note 30.

⁵³ See, e.g., *Nike Reveals Overseas Factory Names, Locations*, THE ASSOCIATED PRESS, Apr. 13, 2005, http://www.msnbc.msn.com/id/7480688/ns/business-us_business/t/nike-reveals-overseas-factory-names-locations/#.UO7cV7bR2AE, archived at <http://perma.cc/F6QL-SCD7>.

create an entirely new level of accountability and would render corporations unable to distance themselves from their supply chain.

The university apparel sector has achieved a modicum of this accountability by requiring brands that produce for colleges and universities to disclose the names and locations of the factories that produce for them.⁵⁴ This has allowed the Worker Rights Consortium, the only independent monitoring agency working in the university apparel sector, to determine which university apparel is being made, or has recently been made, in factories from which they receive complaints of worker rights abuses. The responsibility for maintaining and updating disclosure data falls to the brands, however, which has meant that the data disclosed is often incomplete or untimely. Therefore, apparel brands are still able to disclaim liability by saying that their goods were not produced in a particular factory at a particular time. Tracking labels would solve this problem by instantly allowing components to be traced back to exactly when and where they were produced. Presently this system facilitates recalls in the event that certain toxic goods are imported in the United States. If expanded to the electronics industry, this system could also facilitate improvement of health and safety in supplier factories by directly linking major multinational corporations to supplier factories by the date that their goods were produced inside those factories.

Tracking devices would not only create a threat of accountability that would loom over major multinational electronics firms and permit easy recall of electronic devices whose components were found to be hazardous to the health of consumers, it would also provide a tangible tool for U.S. organizers to use as they act in solidarity with workers in supplier factories. Using information provided by workers who complain about unsafe working conditions, U.S. consumers and labor rights organizations could themselves determine which brands produce those goods and which retail stores sell the goods produced in those factories. They could then directly pressure those brands to reach a resolution with the workforce in their supplier factory and improve conditions. If such a resolution could not be reached, the tracking label and the results of such tracking could be used by the United States government, consumers, or the workers themselves, to sue the electronics brand for noncompliance with the new import regulations.

⁵⁴ See e.g., Allie Robbins, *supra* note 36, at 55.

B. Public Product Database

The CPSIA also established a publicly available consumer product safety information database.⁵⁵ The database was formally launched in March 2011 at SaferProducts.gov. “Consumers can submit reports on any safety hazard they have experienced or observed in a product, and the CPSC will transmit the reports to product manufacturers or labelers. Ten days after the transmission, the reports are published to the database. Companies have a limited ability to respond to or challenge publication of the reports.”⁵⁶ Additionally, “the searchable public database [allows] consumers to get updated information on possible hazardous products.”⁵⁷ “Members of the public can search the Database for safety information about products that are in their home already, or that they may be thinking about purchasing.”⁵⁸ The Fourth Circuit recently upheld the validity of this public database, despite potential reputational damage a company could suffer as a result of having a product listed in the database.⁵⁹

A publicly searchable database would revolutionize the way that consumers shop for electronic devices. With a publicly available database through which consumers could research whether complaints have been filed regarding health and safety violations or the negative health effects of electronic components, consumers could have more information about the products they purchase. Workers in manufacturing facilities could directly report health and safety violations through this database from anywhere in the world that has an Internet connection. Consumers could choose not to purchase products from factories about which complaints have been registered.

With the CPSIA’s registry, “[a]gency staff reviews every Report that is submitted. Where appropriate, [the Agency] may undertake

⁵⁵ 15 U.S.C. § 212.

⁵⁶ Melissa Maleske, *How to Implement Safe Measures for Food and Consumer Products*, INSIDE COUNSEL MAGAZINE, (Dec. 21, 2012), available at <http://www.insidecounsel.com/2012/12/21/how-to-implement-safe-measures-for-food-and-consum?r=regulatory&page=4>, archived at <http://perma.cc/YL26-VBGH>.

⁵⁷ Flaherty, *supra* note 45, at 385.

⁵⁸ Frequently Asked Questions, SAFERPRODUCTS.GOV, <http://saferproducts.gov/FAQ.aspx> (last visited Feb. 23, 2013).

⁵⁹ George Gombossy, *Company Doe Sued to Keep Complaint Out of Federal Database Designed to Warn Consumers of Faulty Products*, CTWATCHDOG.COM (Apr. 16, 2014), <http://ctwatchdog.com/finance/company-doe-sued-to-keep-complaint-out-of-federal-database-designed-to-warn-consumers-of-faulty-products>, archived at <http://perma.cc/JAG7-CRYD>.

additional product investigations.”⁶⁰ With a publicly searchable database of electronic imports, the Electronics Import Safety Commission could similarly begin to investigate when workers report violations of their rights. Workers could report abuses on their own or through unions. Violations of worker rights could then be independently investigated and verified. Electronics manufacturers would not be able to hide from such reports, as they would be publicly available. If funding were not available for such an endeavor through the federal government, however, workers’ rights advocates in the United States would still have access to the information in the database, could verify the information themselves, and could then use that information to conduct community organizing campaigns, leveraging their consumer power to pressure companies into compliance with health and safety standards.

C. *Independent Third Party Certification*

The CPSIA requires that an independent third party certify product compliance with all “rules, bans, standards, or regulations” applicable under the Act.⁶¹ The Act defines a “third party conformity assessment body” as one that “is not owned, managed, or controlled by the manufacturer or private labeler of a product assessed by such conformity assessment body.”⁶² “Testing can be completed by a government agency unless it is determined that the government is influenced by the industry or company.”⁶³ The Act lays out compliance requirements in great detail, including timelines for product testing, publication requirements, and audit protocols.⁶⁴ A 2011 amendment to the CPSIA also “authorizes certification of compliance with an applicable product standard by documentation that a product meets another national or international governmental standard that the CPSC determines is the same as or more stringent than the applicable product standard.”⁶⁵ To facilitate this process, the Consumer Product Safety Commission maintains a list of accredited third party testing laboratories.⁶⁶

⁶⁰ File a Report, How Will You Use My Report?, SAFERPRODUCTS.GOV, <https://www.saferproducts.gov/CPSRMSPUBLIC/INCIDENTS/REPORTINCIDENT.ASPX> (last visited Feb. 23, 2013).

⁶¹ 15 U.S.C. § 102.

⁶² *Id.*

⁶³ Flaherty, *supra* note 45, at 385.

⁶⁴ 15 U.S.C. § 102.

⁶⁵ Beveridge & Diamond P.C., *supra* note 49, at 4.

⁶⁶ *List of CPSC-Accepted Testing Laboratories*, UNITED STATES CONSUMER PRODUCT SAFETY COMM’N, available at <http://www.cpsc.gov/cgi-bin/labsearch/> (last visited Feb. 23, 2015), archived at <http://perma.cc/VTG3-XZDN>.

A similar third party monitoring program should be set up under the Electronics Import Safety Commission. Companies have been slow to recognize safety and health concerns in electronics manufacturing,⁶⁷ and cannot be trusted to self-certify that their products are manufactured under safe conditions. This is especially true given the vast nature of the electronics supply chain.⁶⁸ As has been seen in other industries, independent third party monitoring is the only way to adequately ensure compliance with worker safety regulations. Without the involvement of organizations that are truly independent from all of the companies involved in the supply chain, too many questions will be raised about the veracity of any investigative findings.⁶⁹ The CPSIA (as well as the FDA)⁷⁰ clearly recognized the danger of corporate control over certification processes, and their wisdom should be heeded.

Independent third party verification of working conditions is different from independent verification of the levels of contaminants in a particular consumer product, but it is not impossible, nor is it without precedent. In the United States, the Occupational Safety and Health Administration is tasked with inspecting workplaces for compliance with health and safety regulations.⁷¹ The USDA and FDA actively work to minimize hazards in food and drug production internationally.⁷² Additionally, non-governmental independent monitoring agencies such as Verite and the Worker Rights Consortium already inspect factories worldwide.⁷³ Similar

⁶⁷ See *infra* Section I.

⁶⁸ See *infra* Section IV-B.

⁶⁹ See e.g., Charles Duhigg and Nick Wingfield, *Apple Asks Outside Group to Inspect Factories*, BITS BLOG N.Y. TIMES, (Feb. 13, 2012, 9:10 PM), http://bits.blogs.nytimes.com/2012/02/13/apple-announces-independent-factory-inspections/?_r=0.

⁷⁰ See *infra* Section III.

⁷¹ *OSHA Fact Sheet: OSHA Inspections*, OCCUPATIONAL SAFETY AND HEALTH ADMIN., available at https://www.osha.gov/OshDoc/data_General_Facts/factsheet-inspections.pdf, archived at <https://perma.cc/RD7L-XWJQ>.

⁷² See *supra* Section III.

⁷³ See e.g., *Workplace Assessment & Performance Improvement*, VERITE, <http://www.verite.org/Auditing> (last visited Mar. 16, 2015), archived at <http://perma.cc/Z772-BJKZ> (Verité for example “evaluates facility conditions against Verité Best Practices- social compliance benchmarks aligned with International Labor Organization (ILO) core conventions, and reflecting Verité’s 15 years of experience conducting social compliance assessments in manufacturing and processing workplaces. The service incorporates extensive worker interviews, management interviews, an inspection of the physical plant, the collection of documents, detailed analysis, and verification.”); *Mission*, WORKER RIGHTS CONSORTIUM, <http://workersrights.org/about/> (last visited Mar. 16, 2015), archived at <http://perma.cc/83Z9-K3EM> (“The Worker Rights Consortium (WRC) is an independent labor rights monitoring organization, conducting investigations of working conditions in factories around the globe. Our purpose is to combat sweatshops and protect the rights of workers who make apparel and other products.

organizations could be developed in order to comply with independent third party inspection regulations under the Electronics Import Safety Commission, so that the federal government does not have to bear this burden alone. These organizations would be experts in the specific hazards caused by the chemicals used in electronics manufacturing, and would likely need to set up a system that included both surprise factory investigations, and long-term monitoring of worker health conditions since many health issues in the electronics industry do not manifest themselves until prolonged exposure to hazardous chemicals has occurred.

D. *Whistleblower Protections*

“The Act contains a ‘whistleblower statute’ that makes it illegal for retailer, manufacturer, import, or distributor’s employer to fire or discriminate against employees who report violations or testify in enforcement proceedings.”⁷⁴ Specifically, the Whistleblower Protection Section states:

SEC. 40. (a) No manufacturer, private labeler, distributor, or retailer, may discharge an employee or otherwise discriminate against an employee with respect to compensation, terms, conditions, or privileges of employment because the employee, whether at the employee’s initiative or in the ordinary course of the employee’s duties (or any person acting pursuant to a request of the employee)—

- (1) provided, caused to be provided, or is about to provide or cause to be provided to the employer, the Federal Government, or the attorney general of a State information relating to any violation of, or any act or omission the employee reasonably believes to be a violation of any provision of this Act or any other Act enforced by the Commission, or any order, rule, regulation, standard, or ban under any such Acts;
- (2) testified or is about to testify in a proceeding concerning such violation;
- (3) assisted or participated or is about to assist or participate in such a proceeding; or
- (4) objected to, or refused to participate in, any activity, policy, practice, or assigned task that the employee (or other such person) reasonably believed to be in violation of any provision of this Act or any other Act enforced by the Commission, or any

The WRC conducts independent, in-depth investigations; issues public reports on factories producing for major brands; and aids workers at these factories in their efforts to end labor abuses and defend their workplace rights.”).

⁷⁴ Flaherty, *supra* note 45, at 386.

order, rule, regulation, standard, or ban under any such Acts.⁷⁵

Including a similar whistleblower protection provision in a statute designed to provide protection for workers in electronics factories is critical, particularly given the history of union busting and retaliation that workers have faced when attempting to improve their conditions.⁷⁶ Without whistleblower protections, workers will be hesitant to register claims against their employers for hazardous working conditions. With the whistleblower protections, however, workers would have recourse if they were disciplined, fired, or otherwise discriminated against after registering a complaint or otherwise providing information regarding health and safety conditions inside an electronics manufacturing plant. Workers would also be protected if they refused to work under hazardous conditions. Therefore if workers did not receive proper safety equipment, if a factory did not have proper ventilation, or if workers were not given proper health and safety training, they could refuse to work under those circumstances, and would themselves have recourse that would prevent retaliation. Of course, language protecting whistleblowers is insufficient by itself. The Electronics Import Safety Commission must also have mechanisms for enforcing this provision, just as the CPSIA mandated.

E. Enforcement Power

The crux of the enforcement power laid out by the CPSIA falls in its recall⁷⁷ and state attorneys general provisions.⁷⁸ Not only do civil penalties attach to noncompliance with the sections of the Act,⁷⁹ but criminal penalties attach as well.⁸⁰ Further, “the Act expands the CPSC’s recall authority to products that violate any rule under the act or ‘imminently hazardous consumer products.’”⁸¹

⁷⁵ 15 U.S.C. § 2087.

⁷⁶ See e.g., Mischa Gaus, *Korean Workers Get Sirius*, IN THESE TIMES (Dec. 31, 2008), http://inthesetimes.com/article/4118/korean_workers_get_sirius1, archived at <http://perma.cc/DKX6-KNJQ> (When workers at a Korean factory producing radios for Sirius Satellite Radio formed a union, the company fired the union’s organizers and threatened to fire nearly the entire workforce. Management then began a practice of firing one worker per week in an attempt to keep workers fearing for their jobs.); Sun Li & He Dan, *Workers Laid Off Illegally After Two-Week Strike, Arbitrators Rule*, CHINA-WIRE (June 11, 2014), <http://china-wire.org/?p=34588>, archived at <http://perma.cc/4UF4-WREK> (Similarly, when workers at a plant producing for Coactive Technologies in China’s Fujian Province went on strike, the company laid off forty workers.).

⁷⁷ 15 U.S.C. § 2064.

⁷⁸ 15 U.S.C. § 2073.

⁷⁹ 15 U.S.C. § 2069.

⁸⁰ 15 U.S.C. § 2070.

⁸¹ Flaherty, *supra* note 45, at 386.

These enforcement mechanisms are regularly used. Recalls are commonplace,⁸² and the CPSC has brought a number of lawsuits in order to mandate recalls.⁸³ The Department of Justice has also filed suit in federal court against several companies it accused of violating the Consumer Product Safety Act.⁸⁴

Regulation of the electronics manufacturing industry through an Electronics Import Safety Commission must include similar enforcement mechanisms. The threat of public recrimination when it is found that a company's manufacturing process puts workers' lives at risk would be a tremendous improvement, but would be insufficient to create real change if not paired with tangible legal recourse. The Department of Justice, the Attorney General, and other agencies must have the power to sue the brands that import goods manufactured under repressive and unsafe conditions. This is the only way to truly hold these companies accountable for the processes by which their goods are made. If workers themselves were granted jurisdiction to sue the manufacturers, this would provide an even more direct line of accountability, as they are the ones who live these violations daily and are in the best position to identify and document health hazards. However, multinational corporations are generally more fearful of the U.S. Department of Justice than they are of their own workers. Thus, the U.S. government must have both the power and the resources to take legal action against violators of U.S. import regulations.

V. CONCLUSION

The issue of sweatshop labor and the exploitation of workers

⁸² See e.g., *Recent Recalls*, CONSUMER PRODUCT SAFETY COMM'N, <http://www.cpsc.gov/en/Recalls/> (last visited Mar. 16, 2015) (For example, twenty-four products were recalled in March 2015 and twenty-two products were recalled in February 2015, primarily due to risks of falling, choking, electric shock, and flammability.).

⁸³ *Recall Lawsuits: Adjudicative Proceedings*, CONSUMER PRODUCT SAFETY COMM'N, <http://www.cpsc.gov/en/Recalls/Recall-Lawsuits/Adjudicative-Proceedings/> (last visited Mar. 16, 2015), archived at <http://perma.cc/6DNY-Y8CK> (Recently, the Consumer Product Safety Commission brought a lawsuit a suit against Maxfield and Oberton Holdings, the makers of Buckyballs and Buckycubes, for selling products that pose a risk of ingestion, resulting in serious medical complications. Similar lawsuits have been brought against Zen Magnets and Star Networks USA, who also make magnet products. The Commission has also recently sued Baby Matters LLC, to "protect children from the substantial risks of injury and death posed by infant recliners.").

⁸⁴ Matthew Cohen, *Toy Companies Sued for Importing Defective Products*, CONSUMER PRODUCT MATTERS, Mar. 6, 2014, <http://www.consumerproductmatters.com/2014/03/toy-companies-sued-for-importing-defective-products/>, archived at <http://perma.cc/RUH2-XWSP>.

in the global supply chain is not new. What is new, and what deserves our attention and government regulation, is the particular struggle of those workers manufacturing electronic components and devices. Electronic devices have revolutionized nearly every aspect of our lives—the way we work, play, communicate, and interact with one another. The impact on daily life in western nations is clear. What is also becoming clear, however, is that the people who make these electronic devices for us suffer uniquely, developing cancers and other chronic and terminal diseases, and possibly passing severe health issues along to their children. It is the responsibility of countries importing these devices to make sure that these health risks are minimized. This is not only the moral approach; it also has the potential effect of helping to protect the safety of consumers. Safety in manufacturing will lead to safety for consumers as well, as corporations will be forced to confront the toxic nature of the chemicals that they use, and their impact on the health and safety of all human beings. The United States already has mechanisms in place for addressing what happens in manufacturing facilities worldwide. In order to keep up with rapidly changing times, we must mirror those mechanisms and expand them to the arena of electronics manufacturing.

