



**DRAFT: December 11, 2018**

**Response to the Bureau of Industry and Security Request for  
Public Comments Regarding Foreign Disposition of Certain Commodities**

**1. Introduction**

The Coalition for American Electronics Recycling (CAER) strongly supports the changes proposed by the Bureau of Industry and Security (BIS) regarding foreign disposition of certain commodities, specifically electronic waste (e-waste). Our membership includes over 150 U.S. companies and supporting members in the e-waste recycling industry that operate more than 300 facilities in 37 states as well as the District of Columbia and Puerto Rico. CAER members believe electronics recycling should be performed securely and sustainably, to protect national security, and for the benefit of the American economy.

**2. The E-Waste – Counterfeit Connection**

Counterfeiters, based primarily in China, use e-waste exported from the U.S. to create counterfeit microchips that undermine our national security, as determined by a Senate Armed Services Committee study. The U.S. Senate Armed Services Committee study found more than 1 million fake parts in military equipment, raising serious reliability concerns. The report notes that “there is no way to predict how well (the counterfeit electronics) will perform, how long they will last, and the full impact of failure.”

Current trade policies help fuel this threat because counterfeiters use microchips stripped from e-waste, much of it exported from the United States, as their raw materials. The United States exports, by conservative estimates, more than 750,000 tons of e-waste each year. This waste stream includes computers, phones and other electronics that contain the intellectual property of U.S. businesses, including companies that work on Defense and other technologies related to national security.

The e-waste is supplied to counterfeiters through unscrupulous scrap dealers and brokers in the U.S. who promise secure, responsible domestic recycling but ultimately “pack and stack” the e-waste into shipping containers and send them overseas. While CAER members are committed to responsible domestic recycling, these aggregators of used electronics work through brokers to ship equipment overseas and get paid pennies per pound for mixed assorted of electronics. CAER members see solicitations from these brokers all the time.

Despite efforts to curb counterfeits through supply chain reforms and other measures, the problem remains serious. The Department of Defense Annual Industrial Capabilities report, [issued in March 2018](#), states, “Counterfeit parts have the potential to delay missions and ultimately endanger service members.”

In addition, as recently as May 2018 an electronics distributor was charged with [selling counterfeit electronics](#) with military and commercial uses. Imported from China, the microchips had been pulled from non-functioning e-waste then repainted and remarked with counterfeit logos, ID numbers, and date codes. The U.S. Attorney’s Office stated the distributor sold counterfeits knowing “the use, malfunction, and failure of which were likely to cause serious bodily injury and death, the disclosure of classified information, impairment of combat operations, and other significant harm to a combat operation, a member of the Armed Forces, and to national security.”

### **3. Alignment with the Trump Administration’s National Security Strategy**

More broadly, limiting export of untested, nonworking e-waste used by counterfeiters aligns with President Trump’s National Security Strategy (NSS), unveiled in December 2017. The NSS is designed to “restore America’s advantages and build upon our country’s great strengths by countering China’s challenge to American power, preserving peace through military strength and promoting American prosperity. Here are six key statements from the National Security Strategy that highlight the need for action:

- ***“We will rebuild America’s military strength to ensure it remains second to none.”*** Yet no matter how much we invest in our defense, counterfeit electronic components originating from China create serious concerns about the reliability of military hardware. The Armed Services Committee report notes that with counterfeit chips “there is no way to predict how well they will perform, how long they will last, and the full impact of failure.”

- ***“America will no longer tolerate chronic trade abuses and will pursue free, fair and reciprocal economic relationships.”*** Many of these counterfeits are used electronic parts – culled from e-waste exported from the United States and other countries – made to look new and be sold as new. These unethical trade practices undermine our security, and the Department of Commerce must act to restrict the export of untested, unprocessed e-waste that provides low-cost feedstock for counterfeiters.
- ***“We will redouble our efforts to protect our critical infrastructure and digital networks, because new technology and new adversaries create new vulnerabilities.”*** Counterfeit electronics provide a platform for hackers and cyber terrorists to launch attacks. Malware added to counterfeit microchips could steal information or prevent a device from operating as designed. In addition, exported e-waste includes data-bearing devices that can compromise intellectual property and other sensitive information. Given the stakes, we must enact an all-of-the-above strategy to thwart counterfeiters, including untreated e-waste exports.
- ***“We will rejuvenate the American economy for the benefit of American workers and companies, which is necessary to restore our national power.”*** By combating counterfeits through e-waste export restrictions, U.S. policy will support the growth of the domestic e-waste recycling industry and create up to 42,000 quality jobs.
- ***“We will protect our national security innovation base from those who steal our intellectual property and unfairly exploit the innovation of free societies.”*** Counterfeit electronics are a good example of how “every year, competitors such as China steal U.S. intellectual property valued at hundreds of billions of dollars.” The Semiconductor Industry Association states in a white paper “Semiconductor companies spend tens of billions of U.S. dollars per year developing, manufacturing, and supporting products that will operate reliably for many years in customer applications. In contrast, counterfeiters spend minimal money developing and ‘manufacturing’ products.”
- ***“We will evaluate the strengths and weaknesses of our defense industrial base... including contingencies that could affect supply chains.”*** Measures enacted to date against counterfeiters share an important shortcoming – they detect fake microchips once they are in supply chains. By limiting exports, we will choke off an important source of raw materials to make it harder for parts to ever reach our shores.

The proposed regulations support the Trump Administration’s goals by requiring domestic processing of untested, nonworking e-waste so we keep them out the hands of foreign counterfeiters.

#### **4. Broader Risks for Americans**

Beyond national security concerns, counterfeit electronics pose threats to public safety. As noted by the Semiconductor Industry Association:

- A counterfeit semiconductor component was identified in an Automated External Defibrillator (AED), resulting in a defibrillator over-voltage condition. Failure to detect and address this issue could have resulted in improper electrical shocks being applied to heart attack victims, thus jeopardizing their lives.
- A counterfeit semiconductor component caused a fire in the control circuitry in a vacuum cleaner for residential use. This fire was successfully contained, but it had the potential to result in major property damage or even loss of life.
- A counterfeit semiconductor failed in a power supply used for airport landing lights. This did not result in any reported airline take-off or landing incidents, but the potential for such incidents was obvious.
- A broker shipped counterfeit microcontrollers intended for use in braking systems in high-speed trains in Europe.
- A broker shipped counterfeit microprocessors intended for use in automated medication applications, including intravenous (IV) drip machines.

#### **5. Comments on Proposed Regulations**

##### Limiting Costs: Utilize Testing Processes Already Embodied in Industry Standards

We do not anticipate that the regulations will require significant new costs for CAER members, since nearly all of us are certified to the eStewards Standard, the R2 Standard, or both. Both industry certification programs require rigorous reporting and recordkeeping processes. More than 650 companies comply with these standards that require audit procedures for testing scrapped electronics. These companies represent the responsible segment of the recycling industry that is already committed to minimizing export of untested, non-working e-waste. BIS can achieve its policy goals by using the testing, reporting and recordkeeping standards in these industry certifications. Since many responsible recyclers are already complying with them, the result would be minimal additional costs to industry.

### Streamlining Export Classifications

In implementing the new standards, BIS should consider improvements to the classifications for used electronics and e-waste in the Harmonized Tariff Schedule (HTS) and Automated Export System (AES). To improve the system, consider creating categories that clearly differentiate key types of used electronics, such as:

- Untested, nonworking e-scrap
- Tested, working used equipment
- Feedstock derived from processed e-waste

By improving classifications, BIS will also enhance its ability to gather data on exports of used electronics and related materials. While there have been several studies that have attempted to quantify the export issue, many industry leaders are skeptical about the data largely because the lack of accurate categories tends to result in under-estimating the volume of exported e-waste.

### **6. Response to Opponents' Arguments**

While the benefits of limiting e-waste exports are clear, previous legislative proposals have drawn opposition from industry groups more concerned with sustaining a profitable e-waste trade rather than protecting American security. Here are responses to three myths cited by opponents:

**MYTH: The measures represent protectionist policies that disrupt free trade.**

**CAER Position:** The U.S. has historically restricted the trade of products/information that pose a threat to national security, as well as hazardous waste. In addition, the proposed regulations would limit exports only on nonworking, untested materials used by counterfeiters, so it is not a wholesale ban on the trade of used electronics or e-waste. Indeed, these changes would foster more trade in functional used computer equipment and processed commodities that enhance the overall value of exports and reduce trade deficits.

**MYTH: E-waste is widely available in the global waste stream so stopping exports from the U.S. will not have a significant impact on counterfeiters.**

**CAER Position:** The U.S. is the only developed country that allows the export of untested, non-working e-waste. Counterfeiters value e-waste from the U.S. because it is relatively high quality – newer, with significant volumes of higher-value advanced components. By even the most conservative estimates, we export nearly 800,000 tons of e-scrap each year. At minimum, by decreasing this amount of e-waste

available to counterfeiters we would constrict supply and raise prices making this illicit trade less profitable and attractive.

**MYTH: Supply chain reforms enacted since the Senate Armed Services Committee report are adequate to address the problem.**

**CAER Position:** The U.S. government and private industry have been pushing back on a variety of fronts since the Armed Services Committee report. For instance, the Defense Federal Acquisition Regulations (DFARS) have been progressively modified to significantly reduce counterfeit electronics finding their way into military hardware/systems. However, while DFARS addresses military supply chains, it does not address threats to critical infrastructure, healthcare technology, consumer products and more.

While emerging counterfeit-detection technologies are improving our ability to identify counterfeits once they are in the supply chain, the counterfeiters' processes constantly evolve so it is challenging for even a trained eye to detect the better ones without significant testing capabilities. Enforcement also plays a role, with the Department of Justice securing several convictions of individuals and companies knowingly trafficking in counterfeit electronic parts.

**All of these efforts are important – but share a shortcoming.** They only take aim at counterfeits once they are in the supply chain. We also need to combat counterfeiters by choking off the supply of e-waste that comes from our own homes and businesses.

## **7. Conclusion**

We support the regulatory framework proposed by BIS based on the commitment of CAER members to responsible recycling. Our members are already restricting export of untested, non-working e-waste. However, there remains a substantial number of unscrupulous e-waste recyclers and scrap brokers operating in the U.S. that often promise responsible, domestic recycling but routinely export to developing countries. That is how American e-waste ends up in the hands of Chinese counterfeiters.

As outlined in our submission, counterfeit electronics derived from e-waste exported from our shores poses a substantial threat to American national security. By allowing these exports, U.S. policy is turning a blind eye to the risks. The proposed regulations offer a common-sense solution, and CAER members offer the capabilities to process domestic e-waste securely and sustainably.