



Submission of the
Semiconductor Industry Association
on

Request for Public Comments Regarding Foreign Disposition of Certain Commodities
83 Fed. Reg. 53,411 (October 23, 2018)

BIS 2018-0022

December 22, 2018

The Semiconductor Industry Association (SIA) is submitting this document in response to the “Request for Public Comments Regarding Foreign Disposition of Certain Commodities.” 83 Fed. Reg. 53,411 (October 23, 2018)

SIA is the trade association representing leading U.S. companies engaged in the design and manufacture of semiconductors. Semiconductors are the fundamental enabling technology of modern electronics that has transformed virtually all aspects of our economy, ranging from information technology, telecommunications, health care, transportation, energy, and national defense. The U.S. is the global leader in the semiconductor industry, and continued U.S. leadership in semiconductor technology is essential to America’s continued global economic leadership. More information about SIA and the semiconductor industry is available at www.semiconductors.org.

SIA has long played a role in partnering with (1) the Department of Commerce Bureau of Industry and Security (BIS) to provide support regarding reforms and modernization of export control policy, particularly, with respect to semiconductors, and (2) Customs and Border Protection (CBP) and other enforcement agencies in strengthening enforcement efforts and minimizing the risks posed by counterfeit semiconductors. Accordingly, we have a strong interest in the issues raised in this notice.

While SIA strongly supports the goals of stemming the flow of counterfeit microelectronics and responsibly managing electronic waste (“e-waste”), we do not believe that the utilizing the export control system is the most effective means of achieving these goals.

1. SIA is Concerned that a New Licensing Program for E-Waste will Create an Administrative Burden for BIS that will Detract from More Pressing Priorities

An efficient export control system is critical to the global competitiveness of the semiconductor industry in the U.S. Approximately 80 percent of sales of U.S. semiconductor companies are to customers outside the U.S., and semiconductors are

America's fourth largest export (following aircraft, automobiles, and refined oil). Because the export of some semiconductor technologies can be subject to complex licensing requirements that may present competitive challenges for the industry, it is imperative that the export control regime operate in an efficient and effective manner and remains updated to meet current needs. For example, BIS is currently undertaking important rulemakings regarding the identification of "emerging and foundational technologies,"¹ which has the potential to have major impacts on a broad range of technology products. This undertaking is likely to require a significant amount of administrative resources.

In light of limited resources at BIS and its need to focus on technology transfer that may impact the national security of the U.S., SIA believes that BIS should devote its limited resources on its ongoing regulatory responsibilities and the new mandates set forth in the Export Control Reform Act enacted into law earlier this year as part of the defense authorization bill. Adding a new requirement of administering a potentially unwieldy program to regulate the flow of e-waste outside the U.S. would detract from the ability of BIS to carry out its important mission. To the extent that restrictions on the flow of e-waste outside the U.S. is determined to be necessary to protect the environment or limit the availability of material that can be used to supply materials for counterfeiters, we believe other agencies – and not the export control system – should be tasked to achieve these goals.

2. Concerns with Counterfeit Microelectronics Can be More Effectively Addressed by Other Means

SIA strongly supports action to protect against the risks posed by counterfeit semiconductors. SIA has elsewhere summarized the important health, safety, and national security concerns associated with counterfeit semiconductors.² Because semiconductors are the "brains" behind a diverse range of end products, services and systems – including critical products such as healthcare and medical equipment, communication networks, transportation systems and controls, and military and security systems – counterfeit semiconductors may pose risks to critical products that are essential to health, safety, and security.

SIA recognizes that counterfeit semiconductors are often salvaged from discarded electronic products ("e-waste"), often in China, in a dirty, uncontrolled process that results in products that cannot be expected to operate reliably. We further recognize that the improper management of e-waste can pose significant environmental and health problems. Accordingly, the U.S. and others should take appropriate steps to limit the uncontrolled flow of e-waste that can result in the creation of counterfeit

¹ Advanced Notice of Proposed Rulemaking regarding Review of Controls for Certain Emerging Technologies, 83 Fed. Reg. 58,201 (Nov. 19, 2018). Our understanding is that BIS will issue a notice on "foundational" technologies sometime in early 2019.

² SIA White Paper, "Winning the Battle Against Counterfeit Semiconductor Products," available at <https://www.semiconductors.org/wp-content/uploads/2018/01/SIA-Anti-Counterfeiting-Whitepaper.pdf>.

semiconductors. However, we do not believe that the creation of a new export licensing regime is the best means of achieving this goal.

China is the leading producer and consumer of electronic goods, and therefore the country generates and has access to substantial quantities of its own e-waste. The imposition of new license requirements on exports of e-waste will be unlikely to result in a significant reduction of e-waste available to counterfeiters in China and elsewhere around the world. At the same time, and as discussed above, the imposition of a new licensing regime for e-waste will create a potentially large administrative burden for BIS and exporters that could be better focused on higher priority initiatives.

To address the problems associated with counterfeit semiconductors, SIA has long advocated for a multifaceted approach, including the following:

a. Improved Federal Procurement Practices Can Reduce the Prevalence of Counterfeit Semiconductors in the Federal Supply Chain

Federal agencies should engage in renewed efforts to minimize the prevalence of counterfeit microelectronics by improving their procurement practices and employing a tiered approach in purchasing legitimate semiconductors from the authorized distribution chain.³ Purchasing through authorized distribution channels can minimize the risk posed by counterfeit semiconductors entering the federal supply chain.

For those components that are currently in production or in stock, federal agencies should purchase from the original manufacturers of the parts or their authorized dealers or authorized aftermarket manufacturers.⁴ Semiconductor companies generally avoid the creation of “legacy” products by providing customers with notice in advance of the discontinuance of products, in accordance with industry standards.⁵ Nonetheless, situations sometimes arise where parts are not available from original manufacturers, their authorized dealers, or authorized aftermarket manufacturers. Under these circumstances, then purchasers should buy legacy components from OCMs’ Authorized Aftermarket Distributors/Manufacturers that obtain legacy products exclusively from OCMs in wafer, die, or final packaged form. Additionally, most OCMs have contracts with aftermarket manufacturers to manufacture OCM discontinued products. Thus, federal purchasers typically have options through the authorized distribution chain and

³ Winning the Battle Against Counterfeit Semiconductor Products at 21-22.

⁴ Aftermarket manufacturers are entities who work with OCMs and stockpile billions of legacy components or are authorized by OCMs to produce legacy products using the same wafer fabrication process flows and tooling as well as the same packages as the original products. *Id.* at 21.

⁵ Semiconductor companies avoid the creation of legacy products that are out of stock and no longer in production by providing customers with at least six months to place orders and one year to ship orders after a Product Discontinuance Notice (PDN) is issued for a given product. PDNs usually specify replacement products and/or alternate sources for products that are being discontinued. In many cases, customers expect to receive these PDNs, and they have little if any impact on their operations. These measures are consistent with an industry standard, JEDEC Standard JESD48C: “Product Discontinuance,” December 2011 (available for download after registration at <http://www.jedec.org/>).

can avoid unauthorized and unreliable vendors that are typically the source of counterfeit microelectronics.

b. Enforcement Agencies Must Prioritize the Seizure of Counterfeit Semiconductors

Law enforcement agencies such as Customs and Border Protection (CBP) must prioritize the seizure of semiconductor counterfeits and the prosecution of counterfeiters. As noted above, given the pivotal role of semiconductors in enabling the functionality of an array of technology products, counterfeit semiconductors pose more significant risks than most other counterfeit products. Unfortunately, CBP metrics that track the number of shipments or the dollar value of counterfeits seized underestimate the impact that seizures of counterfeit semiconductors have on health, safety, and national security. CBP seizures of counterfeit semiconductors have declined in recent years, and SIA calls on CBP and other agencies to prioritize the seizure of counterfeit microelectronics.

In taking action against counterfeit semiconductors, it is also imperative that CBP and other agencies collaborate with brand owners. Semiconductor companies have the expertise to make the complex assessment of whether a device is authentic and counterfeit. SIA member companies have worked to train CBP officials on counterfeit semiconductors, and we urge enforcement agencies to continue this partnership. Among other things, enforcement agencies should promptly share information with the industry – such as unredacted photos of suspected counterfeits – in determining whether particular devices are counterfeit.

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SIA appreciates the opportunity to respond to this notice.