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RE: Docket Number USTR-2013-0019, Request for Comments for the U.S.-EU Transatlantic Trade and Investment Partnership

Introduction

The Semiconductor Industry Association (SIA) welcomes the opportunity to provide comments on the Transatlantic Trade and Investment Partnership (TTIP). SIA is the voice of the U.S. semiconductor industry, one of America's largest export industries and a bellwether of the U.S. economy. SIA unites more than 60 companies from across the United States that account for 85 percent of the nation's semiconductor production.

Semiconductor "chips" are used in everything that is computerized or uses radio waves. Semiconductors are critical components in a staggering variety of products, from smaller computers and smart phones to safer automobiles and navigation systems; from more energy efficient LED lights and appliances to smarter meters and motors. Semiconductors make the world around us smarter, greener, safer, and more efficient. They form the backbone of our critical telecommunications, power and transportation infrastructure and are economically vital to the nation's growth and productivity.

In 2012, U.S. semiconductor companies generated over \$146 billion in sales — representing half the worldwide market, and making semiconductors the nation's second largest manufacturing export industry on a five year average from 2008-2012. The U.S. semiconductor industry directly employs nearly a quarter of a million workers in the United States and indirectly accounts for over a million additional jobs in other

sectors of the U.S. economy. Economic analyses demonstrate that semiconductors, and the information technologies they enable, represent three percent of the economy, but drive 25 percent of economic growth. The U.S. semiconductor industry has an especially robust presence in over twenty states and funds research at over 40 U.S. universities.

The United States and the EU have historically been leading trade partners in semiconductors. In 2012, the EU was the 9th leading destination for U.S. semiconductor exports and the 7th leading source of U.S. semiconductor imports. In 2012, total two-way semiconductor trade between the United States and the EU totaled over \$3.6 billion with U.S. exports to the EU accounting for \$2.1 billion and U.S. imports from the EU accounting for \$1.5 billion. The SIA in the U.S. works very closely with the SIA in Europe through our joint membership in the World Semiconductor Council (WSC).¹

Given the EU's status as a top semiconductor trading partner, SIA encourages the U.S. and the EU to strive for trade and policy solutions that fuel innovation, propel business and drive international competition in order to maintain a thriving semiconductor industry in the United States and Europe.

EU F-Gas Regulation

SIA supports efforts to reduce the emission of fluorinated gases as part of national and international efforts to address global climate change. SIA is concerned, however, that the application of certain provisions of the proposed European Commission's fluorinated gas (F-Gas) regulation to the semiconductor industry could needlessly harm advanced semiconductor manufacturing while doing little to advance our shared environmental goals.

¹ World Semiconductor Council (WSC) – See www.semiconductorcouncil.org The World Semiconductor Council (WSC) is a group comprised of the Semiconductor Industry Associations (SIAs) in China, Chinese Taipei, Europe, Japan, Korea, and the United States. Annually, the CEOs representing major semiconductor companies in each region issue a Joint Statement of Recommendations to governments/authorities.

The F-Gas regulation includes a proposal to phase-down the importation and use of Hydrofluorocarbons (HFCs). The major uses of HFCs are in refrigeration and air conditioning, and we express no views on whether the phase-down of HFCs is appropriate in that context. The semiconductor industry, however, uses small volumes of HFC compounds in certain critical applications in the manufacturing process, and there are no proven substitutes for our uses of these critical gases.

SIA recommends, accordingly, that the phase-down of HFCs should exclude the use of HFCs as a process gas in the production of semiconductors. An exclusion is also warranted in recognition of the minimal emissions of these gases from the semiconductor industry and the industry's longstanding voluntary efforts to manage and reduce fluorinated greenhouse gas emissions.²

SIA's request is aligned with USTR's TTIP objective to "seek opportunities to address environmental issues of mutual concern" that are "consistent with U.S. priorities and objectives."³ Our request also is consistent with the U.S./EU High Level Working Group (HLWG) Report's recommendation that "the two sides explore new means of addressing these 'behind-the-border' obstacles to trade, including, where possible, through provisions that serve to reduce unnecessary costs and administrative delays stemming from regulation, while achieving the levels of health, safety, and

² In the late 1990s the industry, via the WSC, announced an ambitious goal to reduce absolute PFC emissions by 10 percent by 2010. (The U.S. EPA awarded the WSC one of its first Climate Savers Awards to the WSC in recognition of this commitment to action.) In 2011, the WSC announced that it far surpassed this reduction goal and achieved a 32 percent reduction. See http://www.semiconductorcouncil.org/wsc/uploads/WSC_2011_Joint_Statement.pdf (page 6). Building on this success, the WSC announced a new PFC 2020 goal based on the implementation of best practices at new fabs. We anticipate that the implementation of these best practices will result in a Normalized Emission Rate (NER) based on PFC emissions per square centimeter of silicon wafers produced of 0.22 kgCO₂e/cm², which is equivalent to a 30 percent NER reduction from the 2010 aggregated baseline. This new goal will also include of "Rest of World" fabs (this refers to fabs located outside the WSC regions that are operated by a company from a WSC association) in reporting of emissions and the implementation of best practices for new fabs. See http://www.semiconductorcouncil.org/wsc/uploads/WSC_2011_Joint_Statement.pdf (page 6 and Annex 1 at pp. 13-15). The WSC announced progress toward this new goal based on the data reported in 2011 (see <http://www.semiconductorcouncil.org/wsc/uploads/Public%20WSC%202012%20Joint%20Statement-FINAL.pdf>), and we will release our progress for 2012 on May 23.

³ Letter from Acting United States Trade Representative Demetrios Marantis to Hon. John Boehner, March 20, 2013.

environmental protection that each side deems appropriate, or otherwise meeting legitimate regulatory objectives.”⁴

Global Encryption Standards and Regulations

The use of encryption has become more common and widespread in a multitude of commercial ICT applications. Indeed, nearly all ICT products contain encryption to prevent data loss, ensure security and integrity of data (e.g. personal data or in communication) and allow for valuable commercial applications such as mobile payments, e-health, e-passports. However, outdated government security policies remain in place that place unnecessary restrictions on the use of and trade in products containing encryption. These restrictions provide too much opportunity for their implementation in a discriminatory manner. In fact, we already have seen encryption regulations become prescriptive technical mandates that require a specific domestic algorithm rather than being performance based and focusing on the level of security desired,

The WSC, comprised of the semiconductor industry associations in China, Chinese Taipei, EU, Japan, Korea and the U.S., has developed and communicated over the last three years a solid set of encryption best practices to ensure the continued growth of the ICT industry, and the significant demand for and trade in semiconductors.

The WSC Encryption Principles generally state that there should be no regulation of cryptographic capabilities in widely available products used in the domestic commercial market because mandating or favoring specific encryption technologies will reduce, not increase, security and also raise product costs.

The WSC Encryption Principles strongly encourage the use of global or international standards, including normative algorithms, as essential to avoid fracturing

⁴ See Office of the U.S. Trade Representative, [Final Report of the U.S.-EU High Level Group on Jobs and Growth](#), February 11, 2013 [hereinafter “Final HLWG Report”].

the global digital infrastructure and creating unnecessary obstacles to trade. Because security functions are growing in global ICT products and applications, interoperability has become more critical and thus international security standards such as Common Criteria for Information Technology Security Evaluation will increase in importance.

The governments and authorities (GAMS) representing each of the six WSC regions agreed to encouraging all GAMS members and governments in general to observe the Encryption Principles that the WSC has developed since 2009 and to which GAMS members have committed at their annual government and authorities meeting on semiconductors in 2012.⁵ The GAMS acknowledged that the WSC Encryption Principles make it clear that in order to avoid negative impact on the industry's competitiveness, it is important to prevent unnecessary restrictions to trade, and that therefore, commercial products with cryptographic capabilities which are, or will be, widely available and deployed in the respective domestic markets should as a general matter not be regulated.

As recommended by the WSC, the GAMS also agreed to helping ensure open global markets that are free from discrimination by encouraging the adoption of international voluntary standards and norms, including algorithms, as essential to avoid fracturing the global digital infrastructure and creating unnecessary obstacles to trade. In the limited circumstances where regulation may be necessary, the GAMS regions agreed to advocate for transparency and non-discrimination in any regulatory requirements, either in force or being developed concerning encryption in semiconductors used in domestic commercial markets, including the conformity assessment procedures used to demonstrate compliance with those requirements.

SIA recommends that the US and EU should encourage the worldwide dissemination and use of ICT products with encryption-related capability by

⁵ Governments and Authorities representing each of the six WSC regions (China, Chinese Taipei, Europe, Japan, Korean and the United States) meet annually at the Government Authorities Meeting on Semiconductors (GAMS) to review the WSC Joint Statement and Recommendations and take subsequent action.

incorporating into the TTIP the WSC principles on commercial encryption used in widely available ICT as binding commitments and promoting their international adoption.

Regional Stimulus Measures

While the SIA supports appropriate stimulus measures by governments and authorities, it is the view of SIA and the WSC that government actions should be guided by market principles and should avoid adoption of protectionist or discriminatory measures. The competitiveness of companies and their products, not the interventions of governments and authorities, should be the principal determinant of industrial success and international trade, and assistance should be provided in a market-oriented fashion. This is especially important in times of economic downturn or unexpected economic upheaval. Stimulus measures that promote the adoption of information technology, green IT, energy savings, and support research and development in particular have the potential to foster growth and benefit society in the years to come.

SIA recommends that the US and EU should commit to measures that promote the competitiveness of companies and their products as the key determinant of industrial success and international trade.

Trade Secret Protection

In the semiconductor industry, trade secrets represent core business assets; trade secret protection promotes competitiveness, private investment and innovation. Weak protection or misappropriation has the opposite effect, as well as critically detriments future revenue and profit. Theft of trade secrets is a growing problem, and present protections for this critical form of intellectual property through unfair competition law, employment law and other branches of law is often times inadequate.

Additionally, many governments are developing an increasing number of overbroad certification systems and other regulatory schemes that require the

unnecessary disclosure of trade secrets as a condition of market access. The risk that the required sensitive information will leak to domestic competitors is compounded by the reality that many governments have inadequate safeguards to protect such information, and some of those same governments desire increased technology transfer from developed to developing markets

SIA recommends that the US and EU develop comprehensive provisions that implement adequate procedures to protect trade secrets, strengthen trade secret enforcement, and require Parties to justify the necessity of any disclosures of proprietary information as a condition of market access.

Fighting the Proliferation of Semiconductor Counterfeits

Semiconductor counterfeiting is a global issue which is increasingly affecting all parts of the world. Semiconductors are the “brains” behind an incredibly diverse range of end products and systems with “life, health, safety, and mission critical” applications, such as healthcare and medical equipment, national communication networks, emergency response systems, electric power grids (including nuclear and solar power generation systems), industrial and automation systems, and transportation systems and controls. Given the criticality of these end-use products and systems, counterfeit semiconductors pose risks to health and safety wherever they are used worldwide. In addition to counterfeit semiconductors creating a clear and present danger to the public, counterfeits also result in the loss of intellectual property for the original manufacturer. The sale of counterfeits erodes sales of legitimate products and causes job losses and damage to world economies.

SIA recommends that the US and EU commit to fighting the phenomenon of semiconductor counterfeiting, and intensify the implementation of IPR enforcement measures, including information sharing activities, aimed at combatting the trafficking of counterfeit semiconductors.

Elimination of Copyright Levies

The semiconductor industry is characterized by rapid innovation that allows us to offer our customers ever higher functionality at ever reduced costs. Many of our products contribute directly to enhanced economic productivity and societal welfare. Copyright levies on digital media have the opposite effect by increasing the taxation burden as the functionality of a device increases, thereby erasing the cost savings that can be passed on to the consumer.

This position is shared by the members of the WSC. In its 2006 Joint Statement⁶ the WSC stated “that governments/authorities should not allow the establishment of new levies on digital equipment and blank digital recording media or any equipment that can support content protection such as digital rights management solutions and technical protection systems. In addition, members of the WSC encourage our governments/authorities to ensure that language opposing levies is included into new trade agreements and utilize WTO mechanisms to address levies as inhibitors to market growth.”

“The HLWG recommends that the goal of the agreement should be to eliminate all duties on bilateral trade, with a substantial elimination of tariffs upon entry into force, and a phasing out of all but the most sensitive tariffs in a short time frame.”⁷ Levies are an excellent example of a kind of “tariff” that should be expeditiously eliminated under the TTIP agreement, as they decrease consumer cost savings, lower productivity gains associated with ICT devices, and directly inhibit the transatlantic economy from reaching its full innovation potential. *Accordingly, SIA recommends that all levies be eliminated as soon as possible.*

⁶ <http://www.semiconductorcouncil.org/wsc/wsc-meetings> - May 2006 Joint Statement – San Francisco

⁷ See *supra* note 4.

Respecting Cross License Agreements in Bankruptcy

Semiconductor firms on both sides of the Atlantic depend on cross-licensing agreements to protect their massive investments in research, development, and manufacturing from litigation arising from a web of interrelated semiconductor patents. By reducing risk, cross-licenses encourage investment in the development and production of new technologies that benefit consumers in the U.S., Europe, and around the globe.

Under U.S. law, an intellectual property licensee may elect to retain its rights under existing contracts in bankruptcy cases, and the bankruptcy trustee, or any subsequent purchaser of the intellectual property, is required to honor the licensee's existing rights. (11 U.S.C. §365(n)). Other countries such as Germany take a different approach, allowing the bankruptcy trustee to cancel the existing license agreement and either renegotiate the license agreement or sell the intellectual property to a buyer who in turn could seek a new license agreement. Under this rule, the licensee not only has to pay twice to license the same technology, but will be forced to pay far in excess of what the parties would have agreed to when the original cross-licensing agreement was reached because, at the time of design the innovator had a number of implementation options, but after the design is in production, switching to an alternative is more difficult. Ultimately these costs are borne by consumers in the form of higher prices or fewer products/technologies available.

Transatlantic trade is promoted by the certainty provided by respecting cross license agreements in bankruptcy. In passing the U.S. law, Congress noted that such agreements play "a substantial role in the process of technological development" and are "fundamental" to the "creative process that has nurtured innovation in the United States." (S. Rep. No. 100-505, at 3 (1988), *reprinted in* 1988 U.S.C.C.A.N. 3200).

Allowing unilateral rejection of patent cross-licenses when one of the parties to that license becomes insolvent leads to 1) unnecessary litigation, 2) requiring the

licensee to pay twice to practice the patent, 3) added uncertainty to technology investment decisions and Trans-Atlantic technology partnerships, and 4) higher costs for consumers.

SIA recommends that under the TTIP Agreement, all parties harmonize on a rule preventing the unilateral rejection of patent cross-licenses when one of the parties to that license becomes insolvent.

User Fees

As referenced earlier, the semiconductor industry is characterized by rapid innovation that allows the industry to offer our customers ever higher functionality at ever reduced costs. Any meaningful tariff liberalization via TTIP must also be accompanied by the elimination or reduction of import-related fees or other charges that act like duties. Doing so allows consumers to fully realize the cost savings associated with semiconductor products as they cross borders. For instance, the U.S. merchandise processing fee is broadly imposed on imports and has become an increasingly significant import tax on semiconductor products, especially with the increase of the fee's ad valorem rate from .21% to ~.34% in 2011.

SIA recommends that the U.S. seek transatlantic elimination of border fees or charges in the context of TTIP, while ensuring that such user fees are not raised on international trade generally as a TTIP "pay for."

Trade/Customs Facilitation

Overly complicated customs and trade procedures, obligations, and practices have the potential to significantly disrupt supply chains, creating costly impediments that impair companies and consumers. SIA affirms the key importance of trade facilitation in achieving free and open markets, reducing barriers to trade, and improving business conditions that provide significant benefits to governments, industry, and customers

alike. Substantial delays and costs can result from protracted customs clearance procedures; undue requirements for customs entry documents and data; non-automated processes for the import/export/transit of goods; unclear or inconsistently applied customs obligations; and rules that do not take account of risk management or reasonable penalty mitigation procedures.

While the US and EU have both embarked upon numerous trade facilitation and customs procedural improvements over the last several years, numerous TTIP related initiatives could further enhance transatlantic trade. In particular, SIA recommends the following commitments to be memorialized in the agreement, as echoed by others in a variety of industries:

- A single window within the territory of each TTIP party that enables traders to electronically transmit all customs or other data required by a government for the import, export or transit of goods.
- Submission and processing of import-related information (including security data) to enable pre-clearance of goods before their arrival at a port of entry.
- Separating the release of goods in customs custody from the payment of duties or other import charges.
- A unitary import clearance process which ensures that the inspection requirements of all government agencies with border-related responsibilities are met in the conduct of a single cargo release. In addition, clearance procedures across EU member states should be harmonized.
- Robust deployment of automated systems and procedures that expedite release of goods and processing of customs information, ensure system interoperability and compatibility, and avoid redundancy via use of common data elements and related processes for the import, export and transit of goods.
- A US/EU mutual recognition agreement that streamlines criteria and procedures for trusted trader programs through such means as: uniformity between the EU Economic Operator and U.S. Customs-Trade Partnership Against Terrorism programs; a common web-based application process for participation in trusted

trader programs between the EU and the U.S. and among EU member states; assurance that program participants are “first-in-queue” when inspections are required; and enabling program participants to provide import documents to authorities after release of goods.

- Capability for the export documentation/declaration of one party to be used as the import documentation/declaration of the other party, while ensuring harmonization of data requirements.
- Commitment to an administratively easy and time-limited process for issuance of advance rulings.
- Establishment of an enduring transatlantic trade facilitation forum involving government and business stakeholders from both parties to ensure that progress is made on ongoing facilitation measures and that new facilitation efforts are pursued as warranted.
- Commitment to reasonable border compliance and enforcement practices, including consistent interpretation and enforcement of import laws and regulations, elimination of vague requirements, and use of penalty mitigation guidelines that take account of an importer’s compliance record and internal procedures.

Lastly, harmonization of HS subheadings and definitions in the semiconductor industry would reduce companies’ compliance risks, lower costs, and facilitate trade. SIA encourages the U.S. and EU to voluntarily work towards harmonization beyond the six digit level in 8541 and 8542 and harmonization in product definitions where regions are currently classifying products in different headings to the extent possible.