

**JOINT STATEMENT OF THE 14TH MEETING OF THE
WORLD SEMICONDUCTOR COUNCIL (WSC)
MAY 27, 2010
SEOUL**

The world's leading semiconductor industry associations – consisting of the Semiconductor Industry Associations in China, Chinese Taipei, Europe, Japan, Korea and the United States – held the 14th meeting of the World Semiconductor Council (WSC) today. This meeting, held in Seoul, Korea, was conducted under the “Agreement Establishing a New World Semiconductor Council” approved at the third WSC meeting and signed on June 10, 1999, and amended on May 19, 2005.

The WSC meets annually to bring together industry leaders to address issues of global concern to the semiconductor industry. The WSC has the goal of promoting cooperative semiconductor industry activities, to expand international cooperation in the semiconductor sector in order to facilitate the healthy growth of the industry from a long-term, global perspective. It also supports expanding the global market for information technology products and services. Further, it promotes fair competition, technological advancement, and sound environmental, health and safety practices. The WSC encourages cooperation in such areas as environment, safety and health practices, protection of intellectual property rights, open trade, investment liberalization, and market development. All WSC activities are guided by a basis of fairness and a respect for market principles consistent with World Trade Organization (WTO) rules and WSC member association bylaws. The WSC reaffirmed that markets should be open and competitive. Antitrust counsel was present throughout the meeting.

The meeting was chaired by Oh-Hyun Kwon of the Semiconductor Industry Association in Korea, who welcomed the delegates to Seoul. Regional delegations attending the meeting were chaired by Jiang Shangzhou of SMIC, Morris Chang of TSMC, Haruki Okada of Fujitsu Semiconductor, John Daane of Altera, and Richard Clemmer of NXP Semiconductors.

During the meeting, the following reports were given and discussed, and actions on these were approved:

Semiconductor Interdependence

The WSC recognizes the growing interdependence among the world's regional economies in the semiconductor industry and broader electronics supply chain. This interdependence requires that industries and governments and authorities cooperate for the world to continue to reap the benefits from semiconductor technology.

Cooperative Approaches in Protecting the Global Environment

The WSC is firmly committed to sound and positive environmental policies and practices. The members of the WSC are proactively working together to make further progress in this area.

(1) PFC (Perfluorocompound) Emission Reduction

The global semiconductor industry is a very minor contributor to overall emissions of greenhouse gases. The industry is voluntarily reducing its PFC gas emissions. Each of the original WSC members and Semiconductor Industry Association in Chinese Taipei committed to reduce absolute PFC gas emissions by at least 10% from a baseline year by the year 2010. Industry output has increased substantially while emissions have been voluntarily reduced. The WSC members also actively share non-competitive information on abatement technologies and alternative chemicals that can aid in reducing PFC emissions.

Since the start of the program, companies represented at the WSC have devoted considerable resources to meet their PFC reduction goals and these investments are bearing fruit. The WSC remains on track to meet the target reduction goals and it is noteworthy that in 2009 total PFC emissions were lower than the target baseline year. Furthermore, the WSC is actively developing its post-2010 reduction targets and plan.

The chart of WSC Indexed PFC Emissions is attached as Annex 1.

(2) PFOS (Perfluorooctyl Sulfonates) Reduction

As part of the WSC's proactive approach to sound Environment, Safety and Health (ESH) practices, the WSC and the equipment/supplier trade association SEMI endorsed a plan at the May 2006 meeting which applies to both critical and non-critical applications of perfluorooctyl sulfonate (PFOS) chemicals in semiconductor manufacturing. Very small amounts of PFOS compounds are critical ingredients in leading edge photoresists and antireflective coatings, materials used in the photolithographic process for imprinting circuitry on silicon wafers. The WSC and SEMI are continuing to implement the terms of this voluntary agreement. Work continues to invent and develop potential PFOS substitutes for all critical uses in current and future semiconductor manufacturing. Meanwhile, the WSC welcomes the decision of the UN COP4 (Conference of the Parties) meeting of the Stockholm Convention on this substance and the exemptions included for the remaining critical uses in semiconductor manufacturing.

As part of its proactive approach on PFOS reduction, and in accordance with the PFOS Voluntary Agreement, WSC members have prepared an updated report on the progress for public release achieved by WSC members toward their voluntary PFOS commitments. See Annex 2 attached.

(3) Energy Savings in Semiconductor Manufacturing

The WSC recognizes that reducing energy consumption continues to be a central activity in the industry's environmental and sustainability practices worldwide. Reducing energy consumption reduces the need for energy production, resulting in corresponding environmental benefits, and reducing manufacturing costs. The WSC has established an energy conservation partnership with suppliers to the semiconductor industry (represented by SEMI) in a joint effort to achieve further energy-savings in semiconductor equipment. The WSC is developing a framework for a post-2010 energy efficiency strategy.

(4) Quantitative Targets

The WSC members are continuing to focus on resource conservation activities in the production process. The agreed WSC expectation levels, to show progress as an industry, are to reduce normalized electricity (30%), water (45%) used in manufacturing and waste generated (40%) by 2010 from the baseline of 2001. The information collected from the 2008 data, shows that industry expectation levels are being implemented. The normalized reduction of electricity was 37%, water used in manufacturing 46%, and waste generated 46%, from the baseline of year 2001. This follows a lengthy period of extensive evaluation of environmental performance indicators that reflect the levels of energy and water consumption by the semiconductor industry as well as the waste that it generates. The WSC continues to prepare for a post 2010 reduction program in these areas.

(5) Other Environment, Safety and Health Issues

The WSC has a great interest in addressing the global impact of ESH regulations on our industry and in ensuring that regulatory programs are technologically feasible, coordinated and effective in achieving environmental protection. The WSC believes that when ESH laws and regulations are necessary, they should be technologically feasible in achieving environmental protection. The semiconductor industry has long recognized the importance of proactively protecting the global environment – as is demonstrated by our numerous efforts in this area.

(6) Product Compliance

The WSC agrees that responsible stewardship of the content of our electronic products is good for human health and the environment. However, the WSC also recommends that any government developing and implementing any program or supporting systems or programs for RoHS compliance certification would prove most effective when that government works with industry during the program development.

The WSC also recommends harmonization between any mandatory or voluntary certification procedures already in place in the global community. This would include the recommendation for the use of test results from any internationally certified testing laboratory.

Additionally the WSC is concerned that production delays could result when mandatory and voluntary programs are established that require compliance certification prior to product shipment. In addition, some of the information describing the material used by our industry are considered to be company specific intellectual property, know how and trade secrets.

Effective Protection of Intellectual Property

(1) Anti-Counterfeiting

As an industry, WSC members have been involved in anti-counterfeiting efforts for more than 10 years. The importance and necessity of an industry and bilateral government cooperation have been

proven by the successful results of our members' joint border operations. However, our mutual problem still exists and will continue to exist. Of greater concern, is that this industry loss would contribute directly to increases in health and safety risks for consumers. Lasting success can not be based on a few border operations. True success must be based on continuous and increasingly cooperative interaction among governments, law enforcement agencies, industry, as well as the consumer.

The WSC is highly encouraged by the successful results of the first-ever Anti-Counterfeiting Workshop of Customs Experts that was held on September 21-22, 2009, in Jeju, Korea, chaired by the European Commission and Korea. This anti-counterfeiting workshop was the result of the recommendation, adopted in the Governments/Authorities Meeting on Semiconductors (GAMS) which took place September 2008 in Lisbon, to organize a meeting of customs authority experts responsible for stopping counterfeiting. Delegations of all six GAMS members participated in the workshop, i.e. of China, Chinese Taipei, the European Commission, Japan, Korea and the United States.

Following the successful Customs Expert's meeting on semiconductor anti-counterfeiting, WSC urges concrete follow-up actions to be taken by all regions in line with the GAMS conclusions to fight the counterfeiting of semiconductors, with each region reporting back to the GAMS in 2011 on their enforcement measures. Furthermore, WSC notes that in some cases, based on number of seizures and customer complaints, the phenomenon of semiconductors being counterfeited has risen with the start of an economic upturn in the semiconductor market, even doubling in numbers since the end of 2009.

Attached as Annex 3 to this Joint Statement is WSC's Press Release issued on Sept. 24, 2009, regarding the successful outcome of the anti-counterfeiting workshop.

(2) Patent Quality

To maximize the beneficial effect that intellectual property protection has on stimulating and sustaining innovation, patent offices around the world should implement examination procedures that result in the granting of the highest quality patents possible in compliance with the statutory requirements of patentability.

The WSC previously has called on the GAMS to ensure adequate funding of domestic patent offices as a way to improve the timely and accurate issuance of patents. Recognizing that budget is but one aspect of patent office function that can affect patent quality, the WSC desires to promote a broader dialogue with each patent office in which the respective semiconductor industry may provide observations and suggestions regarding issuance of quality patents based on the industry's experiences as one of the most patent-intensive and innovative business sectors in the global economy.

Towards this end, the WSC has collected and studied relevant data on patent examination, issuance and quality, and has observed certain global best practices in issuing patents and formulated suggestions for improving patent quality and harmonization around the world.

A summary of suggestions from our study is attached to this Joint Statement. The WSC expects that this summary would serve as constructive feedback from the WSC and input for GAMS and be of great value to all patent offices.

(3) Future IP Topics

The WSC asked the JSTC to study non-practicing entities who acquire semiconductor IP rights and report its findings at the next WSC meeting, and also noted the new topic of compulsory licensing of environmental patents.

Analysis of Semiconductor Market Data

The WSC reviewed semiconductor market reports covering important industry trends including market size and growth. The WSC observed that the industry development faced short term challenges with global economic meltdown in 2008 and 2009. In the long-term the industry remains promising as advances in technology continue to bring benefits to consumers and businesses worldwide. The WSC also took note of a report from the Semiconductor Industry Association in Korea on historical and current DRAM market developments.

Regional Stimulus

While the economic situation is considerably brighter since the WSC met in 2009, high unemployment remains a problem in many regions, and government economic stimulus measures continue to be pursued. The WSC again stresses that the worldwide semiconductor industry is dependent on open markets and barrier free trade. While the WSC supports stimulus measures by the respective governments and authorities, it strongly urges governments and authorities to pursue actions that are guided by market principles, avoid adoption of protectionist or discriminatory purchasing or preferences as part of such efforts, and advocate transparency. Discriminatory policies will impair economic growth and recovery. The impact of stimulus measures should be measurable in the real economy. Stimulus measures that promote 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 and the WSC advocates that these policies be sustained. In addition, the WSC cautions against funding stimulus through overly burdensome taxation as these could harm economic growth in the future.

Free and Open Markets

The WSC re-confirms its joint statement of 2006, that “as a founding principle, the importance of ensuring that markets be open and free from discrimination, and that the competitiveness of companies and their products be the principal determinant of industrial success and international trade. Governments and authorities should, therefore, insure full intellectual property protection, full transparency of government policies and regulations, non-discrimination for foreign products in all markets, a tariff- and barrier-free global environment for semiconductor products, an end to investment or other regulatory restrictions tied to technology transfer requirements, and removal of unreasonable burdens on world commerce.”

(1) Encryption Standards and Regulations

The WSC recognizes that it is important to insure that markets will be open and free from any discrimination. The competitiveness of companies and their products should be the principal determinant of industrial success and international trade. Governments and authorities should, therefore, insure full intellectual property protection, full transparency of government policies and regulations, non-discrimination for foreign products in all markets and removal of unreasonable burdens on world commerce. The WSC addressed encryption in its 2009 Joint Statement:

“Semiconductors are overwhelmingly used as building blocks for computers, mobile phones, handheld devices and many other widely available commercial information and communications technology (ICT) products and systems. The functionality of semiconductors constantly evolves in order to meet consumer demands, which have increasingly called for product features such as encryption that better protect security and privacy in and across a variety of ICT products and systems. The use of encryption has thus become widespread in many commercial applications.

Regulations that directly or indirectly favor specific technologies, limit market access or lead to forced transfer of intellectual property stifle domestic innovation and, in the case of encryption, prevent access to the strongest available security technologies in the market place, resulting in less secure products. Both global collaboration and open markets for commercial encryption technologies should therefore be strongly encouraged as they inherently promote more secure and innovative ICT products.”

Encryption regulations shall not be used for the purposes of limiting market access for foreign products. The functionality of semiconductors has constantly evolved in order to meet consumer demands, which have increasingly called for product features that better protect security and privacy in and across a variety of ICT products and systems. The use of encryption thus is not limited to government and military applications but has become widespread, given its ability to help safeguard the integrity and confidentiality of information. As a result, the great majority of applications of encryption involve every day commercial products which are commonly used and traded in the global marketplace. To prevent unnecessary restrictions on trade, products with cryptographic capabilities that are, or will be, widely available and deployed -- whether as a result of sales through normal or common retail channels, OEM sales or other means of distribution -- should not be regulated as a general matter except in narrow and justifiable circumstances (e.g., resulting out of international conventions such as export controls to prevent proliferation of munitions and weapons of mass destruction to targeted countries or targeted end users).

To the extent that encryption regulation is necessary, the WSC recommends the following practices:

- Regulations should not directly or indirectly favor specific technologies, limit market access or lead to forced transfer of intellectual property to avoid stifling domestic innovation and, in the case of encryption, preventing access to the strongest available security technologies in the market place, resulting in less secure products.

- Any regulatory requirements must be applied on a non-discriminatory basis and in a manner no less favorable than that granted to domestic producers (consistent with Articles I and III of GATT 1994), and respect intellectual property rights (consistent with Articles 28 and 31 of TRIPS 1994).
- Global collaboration and open markets for commercial encryption technologies should be strongly encouraged as both inherently promote more secure and innovative ICT products.
- Regulatory procedures related to the notification, evaluation, approval, or licensing of goods containing encryption technology, and the process for exempting goods, should be transparent, predictable and consistent with international norms and practices. They should not impose unreasonable or burdensome requirements on such goods. JSTC shall discuss international norms and practices.

The WSC believes that adhering to these practices will allow innovation and the digital economy to flourish, and ensure that the strongest available security technologies will prevail and be available in all the market places to the benefits of all users of commercial products.

(2) Multichip and Multi-component ICs

(A) MCP:

The WSC recommends that the GAMS continue to work to expand the current geographic scope of the 2006 MCP agreement. The WSC appreciates the possibility that certain non-GAMS members may join the agreement. Against this background, WSC considers it of particular importance that all current GAMS members join the agreement. The WSC calls upon all GAMS members to consider pragmatic approaches to facilitate this objective.

The WSC takes note of the 2009 GAMS Chair Summary and acknowledges that the GAMS have clearly established that this is currently an issue to be addressed at GAMS level.

In order to achieve expansion of the geographical coverage of the MCP agreement, the WSC recommends the inclusion of this agreement into agreements such as the ITA, the Doha/NAMA, or other trade agreements.

(B) MCO:

WSC calls upon GAMS to continue to facilitate the growth of the semiconductor market by ensuring free and open markets by eliminating tariffs and non-tariffs barriers for all semiconductor products including new types of semiconductor products such as multi-components ICs.

WSC highly appreciates the agreement among all GAMS members in September 2009 to work with their customs services and industry on defining what constitutes multi-component ICs (MCO) in the terminology of the HS nomenclature, with a view to present such a definition to the next GAMS meeting scheduled for September 2010 and based on such a definition to decide which way forward to

take. The agreement on a definition for MCO is particularly important in view of a future duty free agreement for this category of products.

WSC stresses the importance of short-term technical discussions among customs officials and trade experts of GAMS countries/regions to agree by the deadline of September 2010 on a definition of Multi-component ICs covering current and future semiconductor products. WSC considers it of utmost importance that GAMS expeditiously conduct such discussions in order to meet the September 2010 deadline, taking into full account current proposals.

Our industry is ready to contribute to such technical discussions and provide further expertise to GAMS and/or Customs officials to be able to meet the September 2010 schedule.

WSC is furthermore encouraged by the bi- and multi-lateral exchanges and meetings between GAMS members and Customs officials from GAMS countries/regions which have taken place over the last few months to discuss the MCO definition, and urges all government/authorities from all regions to participate in these.

(3) Rules of Origin

In the GAMS meetings 2008 and 2009 the WSC has re-iterated its position in regard to non-preferential Rules of Origin. WSC has stated that for semiconductor products it strongly supports the principle of harmonized rules of origin for trade remedies and for customs purposes, and in the view of characteristics of semiconductor products rules of origin should be defined by manufacturing processes (diffusion or assembly) and not defined on a value-added (VA) basis.

In regard to pending harmonization and existing different legal regulations for marking and labeling, the WSC has requested GAMS to make progress on the 2008 discussion and find solutions for exempting semiconductor products from mandatory marking and labeling with respect to the origin of the product.

The WSC notes that in the past two years no progress has been made in the discussion between industry and the Governments/Authorities on non-preferential rules of origin. While emphasizing the need of urgency for unified rules of origin at the WTO, WSC has decided to put the topic on hold until relevant issues (such as progress within WTO or changes in legislation in the regions in regard to RoO or marking/labeling) occur.

The WSC re-confirms its desire to further support the ongoing harmonization process whenever it will be required. The WSC will stay in close contact with GAMS members to monitor any progress or changes on this subject.

Export and/or Import Regulatory Restrictions

To further "free and open" markets, the WSC has asked its JSTC to examine regulatory restrictions on exports and/or imports and their potential to affect commercial trade in semiconductors and report its findings at the next WSC meeting.

Doha/WTO

Given that semiconductors provide the key enabling technology for existing and new information technology (IT) products, it is vital that trade in semiconductor products, equipment and materials as well as other IT products is as open as possible and that international rules and domestic regulations foster an open and competitive market.

The WSC strongly supports zero tariff treatment on semiconductors and opposes any tariff and non-tariff barriers related to these products. To this end, the WSC urges GAMS to achieve zero tariff treatment on these products by successful conclusion of the WTO NAMA Electronics/Electrical Sectoral Initiative. The Doha Round should become a true development Round with a far more ambitious outcome. Enhanced growth in GDP in all countries requires free trade – that is, no tariff or non-tariff barriers – on information, computing and telecommunications (ICT) products and services. The increased deployment of ICT products and services will accelerate economic growth rates in developing economies.

To realize these objectives, the WSC recommends members of the GAMS to make every effort to accelerate Doha negotiations to realize zero tariffs and removal of non-tariff barriers for IT products.

Information Technology Agreement (ITA)

Access to advanced and affordable semiconductor products promotes economic development by increasing productivity and providing the infrastructure needed to compete in the digital age.

The WSC strongly advocates that the GAMS continue to support the development of the trade of IT products by observing current ITA commitments pertaining to semiconductors, ensuring new type of semiconductors like MCPs and MCOs are included in the ITA, and expansion of ITA membership.

Semiconductor Social Contribution Through Outreach

The WSC reviewed the activities of the associations to communicate the important role that semiconductors play in enabling energy efficiency and renewable energy, thereby reducing global warming and promoting energy security. The WSC is pleased that our members are actively engaged in outreach activities jointly and independently since the 2008 Green IT Symposium in Tokyo, and desires that our social contribution is well understood by the public.

In the context of energy reduction, the WSC endeavors to lead by example and reiterates its expectation that the WSC will meet its target to reduce normalized electricity consumption by 30 percent by the end of 2010 from a 2001 baseline.

The WSC also reviewed a study prepared by Semiconductor Industry Research Institute Japan (SIRIJ) on Semiconductor Social Contribution. The report addresses the visible (direct) and invisible (indirect) domestic and global impact of the semiconductor industry and its applications. The study shows, for example, that semiconductor innovation brings a 23% increase in total factor productivity in Japan. The report may be found at http://www.sirij.jp/docs/201002_impact_2.pdf.

Approval of Joint Statement and Approval of Recommendations to Governments/Authorities

The results of today's meeting will be submitted by representatives of WSC members to their respective governments/authorities for consideration at the annual meeting of WSC representatives with the Governments/Authorities Meeting on Semiconductors (GAMS) to be held in September 2010 in Kobe, Japan.

Next Meeting

The next meeting of the WSC will be hosted by the Semiconductor Industry Association in Japan in Fukuoka in May 2011.

Key Documents and WSC Website:

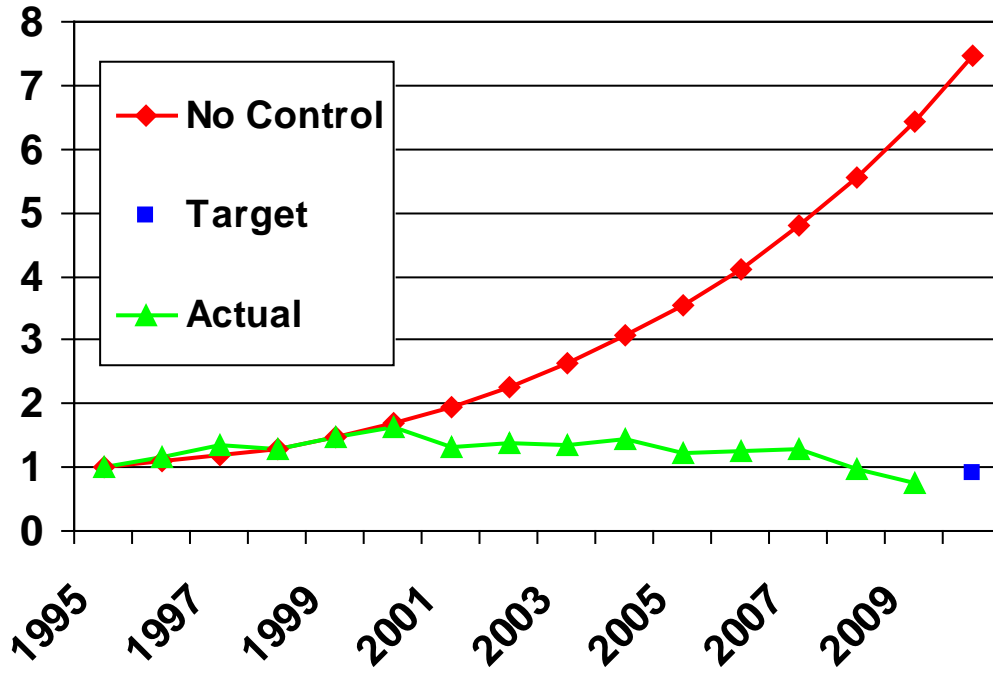
- Annex 1: WSC Indexed PFC Emissions
- Annex 2: WSC Report on PFOS
- Annex 3: WSC Press Release on Anti-Counterfeiting (Sept. 24, 2009)
- Annex 4: Patent Quality Chart

All key documents related to the WSC can be found on the WSC website, located at:
<http://www.semiconductorcouncil.org>

Information on WSC member associations can be found on the following websites:

Semiconductor Industry Association in Europe:	http://www.eeca.eu
Semiconductor Industry Association in China:	http://www.csia.net.cn
Semiconductor Industry Association in Chinese Taipei:	http://www.tsia.org.tw
Semiconductor Industry Association in Japan:	http://semicon.jeita.or.jp/en/
Semiconductor Industry Association in Korea:	http://www.ksia.or.kr
Semiconductor Industry Association in the US:	http://www.sia-online.org

Annex 1: WSC Indexed PFC Emissions



Annex 2: WSC Report on PFOS

As part of the WSC's proactive approach to sound Environment, Safety and Health practices, members of the WSC and SEMI endorsed a plan at the May 2006 meeting which applies to both critical and non-critical photolithography applications of perfluorooctyl sulfonate (PFOS) chemicals in semiconductor manufacturing. Very small amounts of PFOS compounds are critical ingredients in leading edge photoresists and antireflective coatings, materials used in the photolithographic process for imprinting circuitry on silicon wafers. Under the agreement, members of the WSC and SEMI are committed to ending non-critical uses of PFOS and are working to identify substitutes for PFOS in all critical uses. At the May 2008 WSC meeting the WSC and SEMI first reported on the progress of the industry towards its voluntary goals, this statement provide a further update to that information.

PFOS continues to perform an important role in semiconductor manufacturing. Photoresists (resists) and antireflective coatings (ARCs) are used to form the patterns that are then transferred into the semiconductor chip to form the tens of millions of conductors, resistors, and transistors that make up a single integrated circuit. While PFOS remains a critical component of these resists and ARC's the industry has been able to gradually reduce or eliminate PFOS in non-critical uses.

Some of the replacements for PFOS which have been found and implemented in current manufacturing have come from the perfluoroalkyl sulfonates (PFAS) class of chemicals. PFAS has been utilized in this area as a replacement material due to the functionality of its chemical properties.

The WSC is pleased to provide this biennial report of our progress to the voluntary commitments.

- All countries/regions confirmed they dispose of solvent waste containing PFOS using incineration by December 2006 as outlined in the voluntary agreement. These waste management practices insure the highest level of treatment and destruction to reduce the quantity of PFOS that may be released to the environment.
- WSC and SEMI successfully engaged in a worldwide PFOS data collection effort to set a 2005 baseline. The WSC and SEMI also continued to collect 2007 PFOS data. The attached 2007 PFOS mass balance is based on expert knowledge of current manufacturing processes, equipment design and operations. It reflects conservative assumptions and may overestimate releases of PFOS to the environment. The industry confirmed implementation of phase out plans for non-critical uses, with virtually all non-critical uses eliminated in 2007
- The WSC undertook a comprehensive survey and evaluation of potential wastewater discharge control technologies (a list of references can be found in Attachment 2).are attached). Researchers have evaluated various methods to remove or destroy PFOS in wastewaters. Some of the tests showed promising results in a small, bench scale laboratory environment. However, the current performance and economic viability of the treatment technology is not appropriate for semiconductor manufacturing. Additionally, no new technology has emerged at this time which demonstrates technological feasibility, treatment effectiveness and economic viability. Furthermore, while

incineration is an effective treatment method for solvent waste it is generally considered to be an inefficient use of energy for low PFOS concentration, high volume wastewater from the industry.

- WSC and SEMI members have undertaken significant research and development activities in an attempt to work towards PFOS substitution. The elimination of PFOS in non-critical uses is one example of success in this area. However, the unique chemical properties of PFOS used in all critical uses (i.e photolithography) prevent a comprehensive substitution for all PFOS utilised in critical uses. The industry will continue to work towards developing comprehensive PFOS substitutes for current and future semiconductor manufacturing.

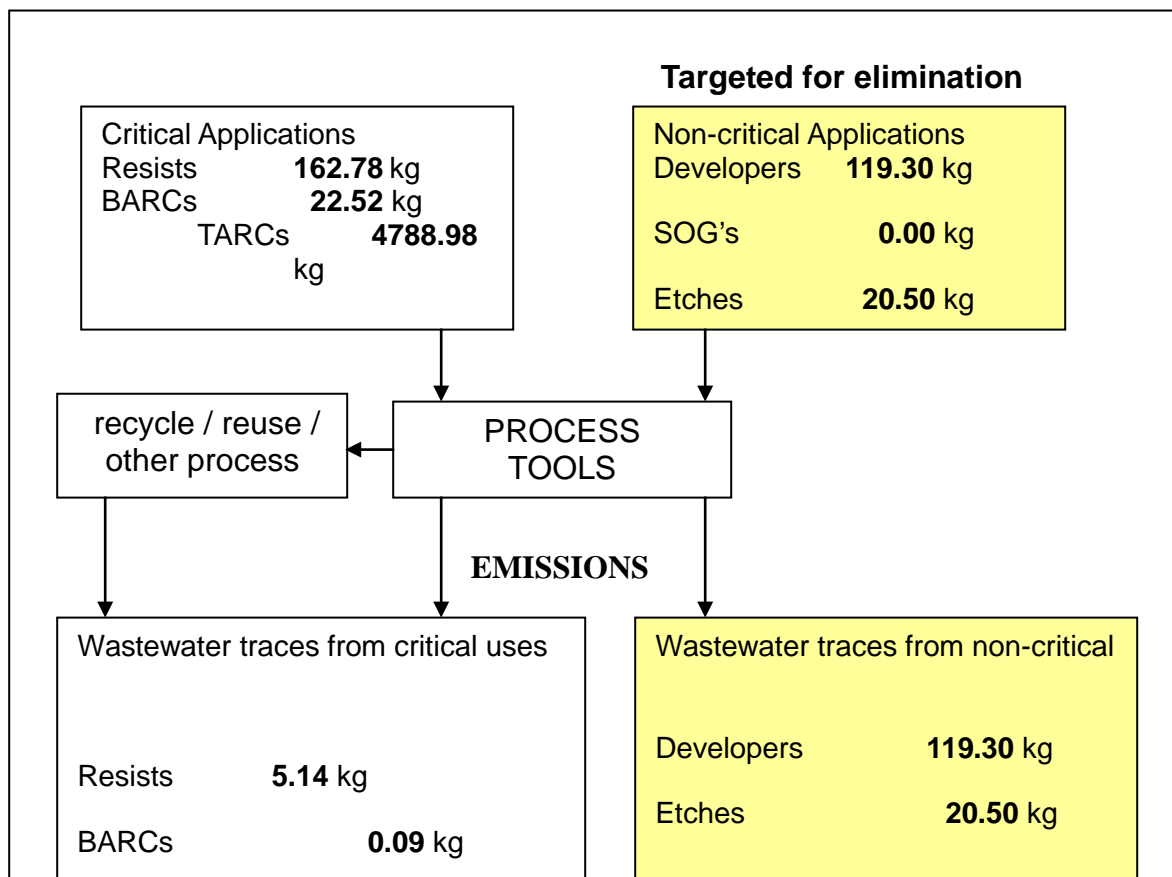
-The Semiconductor Industry Association in China joined the WSC organization in 2008. They are currently assessing the use of PFOS in semiconductor manufacturing in China. Semiconductor Industry Association in China has confirmed that they will also join with the other members of the WSCs and will meet the commitments of the voluntary agreement.

- The WSC and SEMI recognise the decision of the Conference of the Parties to the UN Stockholm Convention on persistent organic pollutants, at their fourth meeting held in Geneva from 4 to 8 May 2009, to adopt an amendment to Annex B to add PFOS. We acknowledge the continued need for PFOS use in critical uses in the industry as outlined in the decision to grant semiconductor uses exemptions.

Attachment 1 to Annex 2:

PFOS Mass Balance

WSC 2007 Data



1. The mass balance is based on expert knowledge of current manufacturing processes, equipment design and operations.
2. The quality of the source data and calculations is improved when new information becomes known.
3. It reflects conservative assumptions and may overestimate releases of PFOS to the environment.
4. A few manufacturing materials containing PFOS may be recycled or reused in other manufacturing processes before disposal to incineration.

Note: While total critical uses are relatively unchanged, resist uses decreased by 35% and non-critical uses decreased by 81% from 2005. In the same period the total emissions from these uses decreased by 34%.

Attachment 2 to Annex 2: PFOS Waste Treatment References

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Annex 3: WSC Press Release on Anti-Counterfeiting**PRESS RELEASE - FOR IMMEDIATE RELEASE****Customs Experts Meet to Curb Semiconductor Counterfeiting**

Jeju, Korea – September 24, 2009 – The World Semiconductor Council (WSC) applauded the conclusions of this week’s workshop of Customs Experts on semiconductor counterfeiting.

The workshop was held on 21-22 September 2009 in conjunction with the Governments / Authorities Meeting on Semiconductors (GAMS), and included customs experts / officials from China, Chinese Taipei, the European Union, Japan, Korea and the United States together with representatives of their respective industries and trade ministry officials.

Together with Korea as location host, the EU chaired the workshop. EU Head of Delegation Henk Molegraaf from the Directorate for Taxation & Customs Union, concluded:

“We were very impressed by the level of openness, expertise and willingness to discuss and cooperate on the issue of the increasing phenomenon of semiconductor counterfeiting. It is clear this is a global problem which is affecting all parts of the world in one form or the other. This was a significant first joint step to address the problem of semiconductor counterfeiting at a global level. I sense the willingness among all participants to follow-up with further steps.”

During the meeting, participants discussed the extent of the problem, societal and economic risks and consequences of semiconductor counterfeiting, descriptions of national enforcement procedures, current efforts to address the problem, and possible “tool kits” to contain semiconductor counterfeiting.

With their *Joint Report* (attached), the Customs Experts responded to the WSC semiconductor CEO Delegates who in May 2008 had raised the topic: “Counterfeit products are an increasing problem throughout the world and the semiconductor industry is no exception to this growing threat... The impact goes beyond IP or trademark infringement of semiconductor companies. Together with an increase in the number of semiconductors being used in an end-product, proliferation of counterfeit semiconductors in today's market creates risks to public safety and health.”

More information on the WSC and its Member associations can be found at: <http://www.semiconductorcouncil.org>

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Korea, 22 September 2009

JOINT REPORT**Anti-counterfeiting workshop of customs experts on semiconductors
in Korea on 21-22 September 2009****Semiconductor producers address counterfeiting**

For the first time representatives of all six major semiconductor producing regions met to tackle the problems posed by counterfeit semiconductor products. On 21-22 September 2009, customs experts from China, Chinese Taipei, the European Union, Japan, Korea and the United States convened in Korea together with their respective industries and trade ministry officials.

Counterfeiting of semiconductors poses increased threats, not only in economic terms for the companies concerned, but also to critical infrastructure. Nowadays, semiconductors increasingly provide much of the enabling technology at the core of both professional and consumer products ranging from mobile phones and car-braking systems to medical devices and satellites.

The customs experts reaffirmed their commitment to protect and enforce intellectual property rights. They shared their experiences and best practices in their fight against counterfeit semiconductors, from both import and export customs control perspectives. Joint actions between governments and increasing joint government/industry co-operation were presented. Topics discussed also included how to physically and electronically spot semiconductor counterfeits, anti-counterfeiting toolkits and the central role of customs.

All participants underlined the importance of having access to information from the semiconductor industry on products and processes to facilitate customs' identification of suspected counterfeit products.

All participants agreed to undertake, as appropriate, enforcement measures (which can be national, bilateral or multilateral) against semiconductor counterfeiting, to keep other members informed and to report back on this to the 2011 GAMS meeting.

Background:

The "Governments/Authorities Meeting on Semiconductors" (GAMS) was founded in 1999 and includes the governments and authorities from China, Chinese Taipei, the European Union, Japan, Korea and the United States. Each year, GAMS members meet with the World Semiconductor Council

(WSC), which includes their respective industry associations, and address topics of importance for the global semiconductor industry in areas such as trade, environment, intellectual property and regulatory requirements. During the GAMS meeting in September 2008 in Lisbon it was decided to convene a meeting of all customs experts in order to step up the world wide efforts against the spread of counterfeit semiconductors.

The worldwide semiconductor industry represents a market valued around 170 billion € in 2008. It is at the basis of many technological advances in sectors like information technology, automotives, electrics and machinery or medical devices.

Annex 4: Patent Quality Chart

WSC Patent Quality Survey Result		EPO	GPO	USPO	CNPO	KRPO	CIPO	JPPO
Suggestion	1. Keep standardized and transparent metrics, including: a) Number of apps/year. b) Number of patents issued/year. c) Number of apps pending at year end. d) Actual examination time per application (from filing until issuance as patent or abandonment). e) Average first action (from filing to first action). f) Case load per examiner (Patent app/examiner). g) Average years experience of examiners. h) Full time/part time examiner ratio. i) Examiner turnover ratio.							
	2. Strike the balance between application of procedure and legitimate interest of applicant, as procedural efficiency weighs heavy	2. Actively promote the use of interviews with the examiner and submit auxiliary amendment	2. Switch from first-to-invent system to first-to-file system	2. Require examiners to have industry or relevant technical work experience	2. Examiners' searching lists should be included in the notice of allowance	2. Increase budget and head-count for examiners	1. More detail would be helpful in rejections relating to 'Lack of inventive step'	
	3. Actively promote the use of interviews with the examiner and submit auxiliary amendment	3. Published targets on time for first office action and time until decision; office to aim for time until decision in line with best of class	3. Limit the continuation practice	3. Introduce an online database access such as the USPTO PAIR System or Epoline	3. Explanation of continuation application	3. Require examiners to have industry or relevant technical work experience		
	4. Publish targets on time for first office action and time until decision; office to aim for time until decision in line with best of class	4. Harmonize with the Patent Cooperation Treaty (PCT) standard of "unity of invention"	4. Harmonize with the Patent Cooperation Treaty (PCT) standard of "unity of invention"	4. Cross check the exam result of other PTOs on the same invention		4. Strengthen prior art search and provide search results in office actions		
	5. More detail would be helpful in rejections relating to 'obviousness' or 'Lack of inventive step'		5. Check the PTA when Notice of Allowance (NOA) is issued	5. Publish targets on time for first office action and aim for time until decision in line with best of class		5. Introduce an online database access such as the USPTO PAIR System or Epoline		
			6. Ease the IDS regulation amend the regulations to state that there is no duty to submit foreign language Office Actions and the prior art references cited in such foreign Office Actions. This is an unclear issue that is a concern among many practitioners reasoning in the office actions. The examination process itself should be more transparent. The China PO's first office actions should be more clear	6. The SPO should provide clear guidelines/training to the examiners so that they can apply a uniform standard in making the "lack of clarity" or the "beyond the scope of original description" type of rejections. In addition, the new "uniform standard" should be more specific on "lack of clarity" rejections, and should provide ample and clear reasoning in the office actions. The examination process itself should be more transparent. The China PO's first office actions should be more clear		6. Improve quality control of examination through more extensive use of senior examiners; improve case assignment		
						7. Cross check the exam result of other PTOs on the same invention		
						8. Using different Examiner in Charge of Re-examination than during original examination		