ASSOCIATION OF HOME APPLIANCE MANUFACTURERS

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By e-mail

Mr. Matthew S. Borman
Deputy Assistant Secretary for Export Administration
Semiconductor Manufacturing Supply Chain
Office of Technology Evaluation, Bureau of Industry and Security
U.S. Department of Commerce
1401 Constitution Ave. NW
Washington, DC 20230

Semiconductorstudy@bis.doc.gov

Dear Mr. Borman:

The Association of Home Appliance Manufacturers (AHAM) respectfully submits the following comments in response to the Department of Commerce's (Department) Notice of Request for Public Comments on Risks in the Semiconductor Supply Chain; Docket No. 210915-0189; RIN 0694-XC084; 86 Fed. Reg. 53031 (Sept. 24, 2021).

AHAM represents manufacturers of major, portable and floor care home appliances, and suppliers to the industry. AHAM's more than 150 members employ hundreds of thousands of people in the U.S. and produce more than 90% of the household appliances shipped for sale within the U.S. The factory shipment value of these products is more than $50 billion annually. The home appliance industry, through its products and innovation, is essential to U.S. consumer lifestyle, health, safety and convenience. Through its technology, employees and productivity, the industry contributes nearly $200 billion annually to the economic security of the United States. Home appliances also are a success story in terms of energy efficiency and environmental protection. New appliances often represent the most effective choice a consumer can make to reduce home energy use and costs.

AHAM strongly supports the Administration's pursuit of securing and strengthening America's supply chains, and acknowledges this critical first step, per Executive Order 14017, to identify risks in semiconductor supply chains. Home appliance manufacturers being a significant end user of semiconductors, which are used in a variety of home appliances to provide critical functions for consumers. Semiconductors are used in all areas of an appliance's operation and performance, including electrical, mechanical, programming and even security. Accordingly, AHAM would like to provide relevant information to the Department which we hope will be useful.

Identify your type of business and the types of products you sell? (question a.)
What are the (general) applications for the semiconductor products and integrated circuits that you purchase? (question b.)

Home appliances are a key downstream entity for semiconductors, with mostly all appliances now using them to operate. The impact of the failure to sustain or develop elements of semiconductors, at a global level, threatens the production of home appliances resulting in significant backlogs at numerous stages of the supply network.

American families are using their home appliances substantially more during the COVID-19 pandemic. Now more than ever, families are depending on home appliances to ensure homes are safe, sanitary, to prepare and preserve food, and to ensure access to clean and safe water. In the fourth quarter of 2020, home appliance shipments increased by 20.5 percent compared to last year, and demand is continuing in 2021, with year-to-date shipments up 26 percent from last year. In fact, a recent AHAM sponsored consumer survey[1] found that not only are consumers using their appliances more in general, but consumers that purchased new appliances during COVID-19 are using them 2.5 times more than those that did not purchase new appliances.

Consumers need home appliances to keep their homes healthy and safe—semiconductor shortages threaten home appliance manufacturers' ability to deliver products to consumers in a timely way. This is especially true given that semiconductor shortages are combined with other similar supply chain challenges such as delayed times (and increased costs) for metals such as steel and aluminum and even for foams used in refrigerators and freezers.

What are the primary disruptions or bottlenecks that have affected your ability to provide products to customers in the last year? (question d.)

What semiconductor product types are most in short supply and by what estimated percentage relative to your demand? What is your view of the root cause? (question h.)

Semiconductors are used in all areas of an appliance's operation and performance, including electrical (energy efficiency), mechanical, programming and even security (connected appliances). The number of semiconductors contained in appliances is significant but varies by product category and type. Accordingly, it is critical that semiconductors not be reallocated from the home appliance industry to another product or use. Because home appliances are so critical to the everyday lives of Americans, we must again highlight our request that allocations do not impede the home appliance industry's ability to provide products to consumers, thus harming not only the industry, but more importantly consumers.

A recent survey of AHAM members found that, due to a confluence of supply chain challenges including the unavailability of semiconductors, lead times for the delivery of finished goods direct to retailers or distributors has increased by as much as 19 weeks. Certain home appliances are impacted more than others, which is dependent on the product type and features. Some

[1] *See* Appliance Usage and Regulatory Findings Consumer Research Report; conducted for AHAM by DIG Insights (February 2021)

manufacturers also indicated that as a result of semiconductor shortage, they have halted production of certain product models.

Manufacturers have indicated they have had to change their operations because of semiconductor shortages and other supply chain disruptions. Changes include (but are not limited to) increased orders of semiconductors and other critical components at one time, changing suppliers, extending delivery times, revising production plant shifts, temporary halting production of certain product models etc.

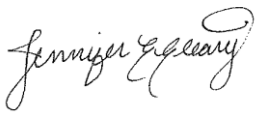
As mentioned above, semiconductor shortages are significant to the overall supply chain disruption issues home appliance manufacturers are currently facing. However, semiconductors are just one of many issues contributing to the problem. Home appliance manufacturers indicate the significant supply chain disruptions are a combination of the following:

1. Shipping container delays:
    a. Availability of containers to ship products
    b. Loading and off-loading of containers at ports
    c. Transportation of containers across the country
2. Product tariffs under Section 232 (steel and aluminum) and China Section 301
3. Shipping delays of components and parts
4. Employment fluctuations:
    a. Halting production lines / cancelling shifts until parts are available
    b. Filling vacant positions
    c. COVID-19 outbreak stoppages

Because supply chain disruptions are impacting all industries, AHAM along with a number of other trade associations have published a white paper to highlight the supply chain challenges our industries are facing. The full paper is attached as an appendix to these comments.

AHAM appreciates the opportunity to submit these comments on Commerce's Notice of Request for Public Comments on Risks in the Semiconductor Supply Chain and would be glad to discuss these matters in more detail should you so request.

Respectfully Submitted,



Jennifer Cleary
Vice President, Regulatory Affairs

Appendix A

Supply Chain Disruptions Affect Viability of U.S. Manufacturing Sector

Overview
This white paper illustrates the supply chain disruptions that are lowering the competitiveness of our combined industries and hindering our members' U.S. manufacturing capabilities. Trade distortions and the COVID-19 pandemic have resulted in shortages of critical components, the effects of which expose the severe and worsening deficiencies in the U.S. logistics network and lead to delays and costly inflation at every stage of the manufacturing supply chain. These issues and ongoing labor shortages, disrupt domestic production, result in temporary shutdowns, reduce sales, raise consumer costs, and delay the delivery of critical products. All of this combines to stall the U.S. economy.

Request
Our members need immediate relief and ask policymakers to initiate the following policy options:

- **Remove Section 232 tariffs on steel and aluminum imports, at least on our allies. At a bare minimum, we suggest a revision of the product exclusion process such that exclusions are transparent and available to all downstream manufacturers of the material, rather than only to the importer of record;**
- **Remove Section 301 tariffs on Chinese imports, or at least renew all of the previously granted expired exclusions; and**
- **Ensure that semiconductor supply is fairly and transparently allocated across industry sectors and that the Administration does not—explicitly or implicitly—favor any one sector over others.**

Economic Impact

Our combined industries' economic impact in the U.S. is $591 billion and we employ over 2.7 million people. Our member companies' products perform essential functions across critical infrastructure sectors including healthcare, education, energy, electric grid, foodservice and hospitality, information technology, medical imaging, transportation, water/wastewater, and home appliances that Americans rely on daily for health and safety at home and at work. The effects of COVID-19 have exposed long-standing weaknesses in U.S. logistical networks that are decreasing U.S. competitiveness. Our members need policy changes so that they can continue to provide critical products to consumers in a timely, affordable way.

The Problem

The factors described below illustrate the myriad supply chain challenges that require immediate attention from policymakers to improve U.S. manufacturing prospects:

Tariffs and Trade Distortions

Tariffs on raw materials, low tech/cost components, equipment, and finished goods, all of which are not adequately produced in the U.S., are causing delivery delays of critical products and/or higher consumer costs. The Section 232 tariffs on imported steel and aluminum are causing:

- Record high metal prices (for many metals, producers won't even provide price quotes).
- Outright unavailability of metal.
- Increasingly long delivery lead times.

Likewise, the Section 301 tariffs on imports from China are causing:

- Lack of supply and/or higher prices of substitute components/products.
- Lack of time and resources to find new sources of components.
- Multiple companies sourcing from the same pool of non-Chinese supplier alternatives.

Logistical and Infrastructure Bottlenecks

Ocean freight rates have more than tripled during the past 12 months, presenting an unsustainable economic burden for manufacturers and distributors and raising costs for consumers. Other associated ocean freight costs, such as detention, congestion fees, and surcharges, have elevated total costs to historic highs. This is coupled with a lack of available space and substantial increases in transit times resulting in higher cost of goods and lower inventory levels. Labor shortages have worsened the problem, as a lack of longshoremen to unload ships has backlogged ports, and a lack of truck drivers has resulted from demographic changes, difficulties in attracting young people to the field, and an inability to train new drivers

during the COVID-19 pandemic. Lastly, the aging U.S. infrastructure network, which scores a C- in the latest report by the American Society of Civil Engineers, compounds the issues described above.

COVID-19-Related Effects
Plant shutdowns and/or slowdowns caused by the COVID-19 pandemic, including current difficulties attracting new employees despite competitive pay and benefits, have reduced manufacturing productivity. Companies have also reported difficulties vaccinating the workforce to make it safe for employees to work in close proximity. Travel and social distancing restrictions have further complicated the difficulties. The pandemic has caused rapid shifts in consumer behavior that have led to increases in purchases of certain goods, including those for household health and comfort. For example, consumers are relying more than ever on room air cleaners and updated HVAC systems, among other air treatment products, to ensure a healthy home during the pandemic. And consumers who have spent more time at home are upgrading their kitchens and other rooms. This increased demand has strained the demand for the raw materials and components to manufacture critical appliances.

Weather Events and Natural Disasters
In addition to everything described above, uncontrollable events and natural disasters, such as the California wildfires, floods in Germany, Texas freezes and their effect on energy infrastructure, and the six-day blockage of the Suez Canal exacerbate existing supply chain problems. In addition, the proliferation of wildfires and flooding has increased the demand for air treatment products.

The Impact
These issues are creating a chaotic and costly operating environment disrupting production. Our members have reported to us that, in response to the supply chain challenges enumerated above, they have had to do one or all of the following:

- Conduct temporary or intermittent plant shutdowns
- Increase prices
- Forgo sales
- Delay delivery
- Limit shipments to those most urgent
- Increase order sizes on components – in hopes of gaining some material - which strains cashflow

The result is that the crucial products our members make are either not available or, if they are available, are more expensive and subject to significant delays. This comes at a time when demand for many of our members' products, including home appliances and HVAC equipment, is, as reported above, at a record high. The combination of increased demand with supply chain challenges is causing the severe supply shortages and delays. For example, some home appliance manufacturers report lead times that are, in some cases, double or triple the normal lead time for delivery due to supply chain challenges.

Increasingly, these issues add administrative burden, especially to small and medium enterprises, in nonproductive activities such as exclusion requests, searching for alternative suppliers, and rerouting freight from land to air. These unplanned activities crowd out opportunities for Research & Development, developing new sales and marketing efforts. These effects will

continue to result in reduced productivity, not only for U.S. workers at the point of manufacture, but all throughout the value chain. Some of the problems described above are long-term in nature and are being discussed in forums such as the Advisory Committee on Supply Chain Competitiveness (ACSCC). We need action now.

Call to Action

Our coalition urges the Biden administration to initiate quickly the policy options, outlined above, to prevent the continued worsening of U.S. manufacturing competitiveness, increase U.S. productivity, and reduce inflation for consumers.

Our Associations

The **Association of Home Appliance Manufacturers (AHAM)** represents more than 150 manufacturers of major, portable, and floor care home appliances, and suppliers to the industry.
Contact: Jennifer Cleary (jcleary@aham.org; 202-872-5955 x314)

The **Air-Conditioning, Heating, and Refrigeration Institute (AHRI)** represents more than 300 manufacturers of air conditioning, heating, commercial refrigeration, and water heating equipment.
Contact: Samantha Slater (sslater@ahrinet.org; 703-293-4871)

The **North American Association of Food Equipment Manufacturers (NAFEM)** represents more than 600 manufacturers of commercial foodservice equipment.
Contact: Charlie Souhrada (csouhrada@nafem.org; 312-821-0212)

The **National Electrical Manufacturers Association (NEMA)** represents nearly 325 electrical equipment and medical imaging manufacturers that make safe, reliable, and efficient products and systems.
Contact: Madeleine Bugel (madeleine.bugel@nema.org; 703-841-3222)