ASSOCIATION OF HOME APPLIANCE MANUFACTURERS

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January 31, 2023

The Honorable Janeen Sollman
Chair
Oregon State Senate
Committee on Energy and Environment

The Honorable Lynn Findley
Vice Chair
Oregon State Senate
Committee on Energy and Environment

RE: SB 405, an act regarding microfiber filtration in washing machines - OPPOSE

Dear Chair Sollman and Vice Chair Findley:

The Association of Home Appliance Manufacturers (AHAM) appreciates the opportunity to provide our views on SB 405, relating to the issue of microfiber filtration in washing machines. We would like to express our opposition to SB 405. We understand the interest and need to address microfiber pollution; however, a filter on a clothes washer is not the solution for many reasons, which are addressed below.

AHAM represents manufacturers of major, portable and floor care home appliances, and suppliers to the industry. AHAM's membership includes over 150 companies throughout the world. AHAM members employ tens of thousands of people and produce more than 95% of the household appliances that are shipped for sale within the United States. The factory shipment value of these products is more than $40 billion annually. The home appliance industry, through its products and innovation, is essential to consumer lifestyle, health, safety and convenience. Through its technology, employees and productivity, the industry contributes significantly to the US job market and the nation's economic security. Home appliances also are a success story in terms of energy efficiency and environmental protection. The purchase of new appliances often represents the most effective choice a consumer can make to reduce home energy use and costs.

The manufacture of plastic exploded over the past 50 years and no one should dispute that this development in material science is a net benefit to society. There is an equally indisputable flip side, and that is the environmental mark that plastic is leaving on the planet. Unsightly litter, the Great Pacific Garbage Patch, and plastic pollution in oceans and waterways are all challenges that require solutions. The home appliance industry, through AHAM, is willing to play its part to find solutions.

The bill in question would require, on or before January 1, 2026, that all washing machines sold as new in Oregon contain a microfiber filtration system. Appliance manufacturers are actively

trying to find a solution to help reduce the release of microfibers, but no viable solution has been found. Therefore, AHAM opposes this bill because this method of addressing the release of microfibers into the environment is an inappropriate way to address the problem and technically impractical.

There are a number of technical challenges to placing a filter on a washing machine. Filters that capture particles of this size (100 microns) will inevitably clog, creating the need for bypass that will render them useless. AHAM commissioned a study by NSF, an independent technical organization, on filtration products for clothes washers. The study's goal was to determine the effectiveness of external filters in capturing microfibers and their impacts on clothes washer performance. NSF found that the filters captured, at best, less than 25% of all material shed during a wash and microfibers are just a small subset of what was captured. The super-majority of microfibers released during the laundry process escape the filters, either because they clog and run in bypass, or because they are incapable of capturing such fine particles.

Filters also can have a negative impact in washing machine energy and water efficiency. Some models in the NSF test used almost twice the energy and water when washing with the filter installed. That equates to running the clothes washer twice for a load, which completely and utterly undercuts the gains made over the years in clothes washer minimum energy efficiency standards. Of note, this additional time also creates more shedding – the very problem that is trying to be reduced. Today's clothes washers are 70% more efficient than decades ago and this bill would virtually eliminate all those gains. Energy and water consumption during consumer use leaves a bigger environmental mark than any other point during a washing machine's lifecycle.

Another problem this bill would create is that in-line filters are ineffective and require an unrealistic level of maintenance from the consumer, including regular cleaning and possibly replacement. The NSF tests showed that it would take longer (more than 13 years) than the useful life of the clothes washer to capture more plastic than the plastic in the filter and this does not even take into account the plastic in all the replacement filters needed throughout the 13 years. Another problem is that if a filter clogs or leaks, flooding can occur in a laundry room.

From a lifecycle standpoint, the least efficient way to address the environmental impact of synthetic textiles is through minimizing those impacts during the use of the clothes washer (catching them mid-stream). Addressing the problem through textile design or through wastewater management systems (at the beginning or end of the lifecycle stream) is more effective.

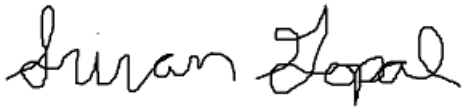
Additionally, microfibers shed from textiles represents a very small percentage of microplastics that ultimately end up in waterways. A study by 5 Gyres Institute and the San Francisco Estuary Institute (SFEI) shows that storm water runoff carries up to 300 times more microplastics (from tires and other sources) than wastewater, which includes water from all sources, commercial and residential with clothes washers being only a small part of that subset. This indicates that requiring filters on even smaller subset of newly purchased washing machines will not have a significant impact on the overall problem. The study by 5 Gyres/SFEI specifically recommends

exploring green storm-water infrastructure management options to reduce microplastics. According to this study, green storm-water infrastructure, also referred to as “low impact design,” is a storm-water management approach used in urban areas that utilizes the natural hydrologic processes of the landscape by increasing source retention, detention, and filtration of storm-water runoff.

Lastly, appliance manufacturers have been researching and trying to develop solutions in this area. In Europe, they have been evaluating how to develop a standardized test procedure as innovative solutions develop across the industry.

Therefore, AHAM opposes SB405 for the foregoing reasons and happy to answer any questions you may have.

Sincerely,



Sriram Gopal
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