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Flexible Packaging Association

Submission to Oregon State Department of Environmental Quality

Request for Information – Recyclable Materials

The Flexible Packaging Association (FPA) respectfully submits the following information in response to The Oregon Department of Environmental Quality's (DEQ) Request for Information: Oregon statewide recycling collection list and producer-collected materials (for recycling).

FPA is a national association that represents flexible packaging (such as rollstock, bags, pouches, labels, liners, wraps, and tamper-evident packaging for food and medicine) manufacturers and suppliers to the industry in the United States. Flexible packaging, a $34.8 billion industry, is the second largest and fastest growing segment of the packaging industry and employs approximately 79,000 workers in the United States. FPA appreciates DEQ's consideration of the below information regarding the recycling capacities of flexible materials and urges DEQ to classify both Polyethylene and Multi-material flexible packaging as recyclable.

Polyethylene (PE)

FPA strongly believes that Polyethylene (PE) is a recyclable, highly versatile, valuable material with a wide range of applications and uses. PE is one of the most widely used polymers worldwide. The Recycling Partnership estimates that the average household generates 75 pounds of film and flexible materials per year. This suggests a residential supply stream upwards of 7.3 billion pounds per year of flexible materials, just in the U.S, and unfortunately, most of it ends up in a landfill. This is largely because our recycling infrastructure is outdated.. Not only is PE recyclable but recycling High Density Polyethylene (HDPE) and Low Density Polyethylene (LDPE) provides benefits to the economy and environment.

When PE is mechanically recycled, the process results in small resin pellets that can be used in other production processes, either with the pellets being used alone or mixed with virgin materials, depending on the product needs. Mechanical recycling, however, generally requires a homogenous material stream, thus plastics must be sorted before they can be mechanically recycled. Mechanical recycling is widely used to regrind plastic water bottles (PET), laundry bottle and milk jugs (HDPE), as well as some flexible materials such as plastic grocery bags (PE). These materials can then be re-incorporated into new packaging or turned into another product, such as plastic lumber, which is often the case with recycled PE bags. What's more, the majority of PE plastics are able to be recycled up to 10 times.

PE based products are also, generally, much lighter than other packaging alternatives, meaning that even with no recycling, they still result in less material sent to landfill vs. other formats. Products made from all PE, such as overwraps and grocery bags can be easily recycled at front of store recycling drop off locations. In classifying PE as a recyclable material, DEQ would further encourage other

recycling collection programs. One such program, the Wrap Recycling Action Program (WRAP) allows consumers to bring PE films such as grocery bags, bread bags, and overwraps for paper towels back to stores as part of the store drop-off program. These PE bags are then combined with other PE film collected at the back of stores and sent to a reprocessing center to be recycled. Following the initial success of the program, the group developed the website www.plasticfilmrecycling.org to provide information to consumers and community leaders on how to advance flexible PE film recycling in their community. The site lists over 18,000 drop-off locations in the U.S. that accept PE films. Furthermore, Research from Europe notes that approximately 80% of flexible packaging today is made from mono-material (mostly PE), showing that the bag drop-off program has a great opportunity to expand flexible packaging recycling.

In the U.S., approximately one-third of all food produced is disposed of before it is consumed, resulting in 1.3 billion tons of food thrown out annually. A cucumber wrapped in PE film can stay fresh for up to 14 days, while an unwrapped cucumber stays fresh for about five days. In the developed world, more than 50% of food waste takes place in households, and nearly 20% is wasted during processing. Plastic packaging helps to reduce this high level of waste in both areas. Food waste is a major contributor to global greenhouse gasses and is a large contributor of methane gas at landfills. Flexible packaging, in general, and PE in particular can help reduce food waste through methods such as portion control (to prevent overuse and waste) and extending food shelf life.

In 2019 the global polyethylene market size was $107.43 billion and is projected to reach $130.26 billion by 2027. Furthermore, states and nations are increasingly requiring higher levels of post-consumer recycled (PCR) content in products and the demand for recycled/recyclable materials like PE has already outpaced the supply. PE is lightweight, highly valuable, easily recyclable, and a crucial piece of the puzzle moving towards a circular economy.

Multi-Material Flexible Packaging

FPA believes that the classification of Multi-Material Flexible Packaging (MMFP) as a recyclable material is of critical importance to the reduction of the environmental impacts of packaging and to continued progress towards a circular economy. MMFP consists of several thin layers that are typically combined with an adhesive or wax. These thin layers each have a specific strength, printing, operation, moisture, and oxygen barrier, which together allow the packaging to meet performance needs while using much less material overall than would be required of any single material. Multi-material films are strong, cost effective, and generally lighter and thinner, which helps to reduce demand for resources required both to produce and to transport packaging–including a reduction in greenhouse gases. Because of these advantages, an estimated 40 billion packages are produced from multi-material films annually in the U.S., and MMFP is anticipated to be one of the fastest growing packaging formats over the coming years. Though the recovery of MMFPs is more complicated than that of some single material packaging, it is becoming increasingly feasible, and the advantages of MMFP make it worthwhile to take extra care during its recycling now while a better infrastructure for MMFP recycling is crafted and refined.

MMFPs can be challenging to mechanically recycle under current infrastructure because they do not have a standard composition, and consequently there can be a wide range of material and some

uncertainty regarding output products. However, these outputs are still viable materials for many end users. It is important to note that multi-material films are still relatively new to the market, and as with most new materials, options for recovery have not caught up. This should not discourage the use of MMFPs or exclude them from recyclability, as there is increasing support for innovation in the recycling of multi-materials through a number of initiatives. One such example is the Hefty EnergyBag program, which collects plastics that are typically thrown away, like candy wrappers and juice pouches, through curbside collection and sorting at a material recycling facility (MRF) and converts them into energy resources. EnergyBag is a great example of an initiative that is complimentary to mechanical recycling, and additionally it demonstrates the feasibility of curbside collection, sorting, and contamination control of MMFPs.

Another example initiative is Materials Recovery For the Future (MRFF), a pilot program in Birdsboro, Pennsylvania that successfully collects, separates and prepares flexible plastic packaging for recycling, including multi-material flexibles. The flexible materials that MRFF captures are processed into a commodity bale for reuse in a variety of markets. This program aimed to and succeeded in demonstrating that adequate optical sorting capacity and peripherals allow for the efficient capture of flexible packaging in a large single-stream MRF.

In closing, the Flexible Packaging Association would also like to stress that it is highly important to consider Advanced Recycling technologies as a complementary method to mechanical recycling in any serious dialogue. Advanced Recycling through pyrolysis and gasification, best demonstrated through the University of Florida's Advanced Recycling Program, can process plastics such as MMFPs that do not have strongly defined end markets and can produce new plastics and chemicals that are virgin equivalent, ultimately enabling a more circular economy for plastics. FPA strongly supports the classification of Advanced Recycling as a form of recycling, and its benefits are particularly valuable with respect to MMFPs.

FPA is grateful for the opportunity to provide comment and would thank you in advance for your consideration. If we can provide further information or answer any questions, please do not hesitate to contact FPA via phone at 410-694-0800 or via e-mail at SSchlaich@Flexpack.org or ATrumpy@Flexpack.org.

Respectfully,

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