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State of Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

Re: Stewardship Program for Packaging – Appendix A Packaging Material Types List

To Whom It May Concern,

The Flexible Packaging Association (FPA) is pleased to offer these comments to the Maine Department of Environmental Protection ("DEP" or "Department") in response to Appendix A, the Packaging Material Types List, developed by the Department as a requirement within the *Stewardship Program for Packaging*, 06-096 C.M.R. ch. 428 (2024).

FPA represents flexible packaging manufacturers and suppliers to the industry in the United States. Flexible packaging represents $42.9 billion in annual sales; is the second largest, and fastest-growing segment of the packaging industry; and employs approximately 85,000 workers in the United States. Flexible packaging is produced from paper, plastic, film, aluminum foil, or any combination of these materials, and includes bags, pouches, labels, liners, wraps, rollstock, and other flexible products.

These are products that you and I use every day—including hermetically sealed food and beverage products such as cereal, bread, frozen meals, infant formula, and juice, as well as sterile health and beauty items and pharmaceuticals, such as aspirin, shampoo, feminine hygiene products, and disinfecting wipes. Even packaging for pet food uses flexible packaging to deliver fresh and healthy meals to a variety of animals. Flexible packaging is also used for medical device packaging to ensure that the products packaged, like diagnostic tests, IV solutions and sets, syringes, catheters, intubation tubes, isolation gowns, and other personal protective equipment maintain their sterility and efficacy at the time of use. Trash and medical waste receptacles use can liners to manage business, institutional,

medical, and household waste. Carry-out and take-out food containers and e-commerce delivery, which became increasingly important during the pandemic, are also heavily supported by the flexible packaging industry. Thus, FPA and its members are particularly interested in and deeply committed to solving the plastic waste issue and increasing the recycling of all packaging. We are submitting these comments to help the State establish an equitable and transparent list for state-wide recycling.

Flexible packaging is in a unique situation as it is one of the most environmentally sustainable packaging types from water and energy consumption, product-to-package ratio, transportation efficiency, food waste, and greenhouse gas emissions reduction standpoints. But circularity options for flexible packaging are currently limited. There is no single solution that can be applied to all communities when it comes to the best way to collect, sort, and process flexible packaging. Viability is influenced by existing equipment and infrastructure; material collection methods and rates; volume and mix; and demand for the recovered material. Single-material flexible packaging, which is approximately half of the flexible packaging waste generated, can be mechanically recycled primarily through store drop-off programs. The other half can be used to generate new feedstock, through pyrolysis and gasification – also known as advanced or chemical recycling.

Developing end-of-life solutions for flexible packaging is a work in progress, and FPA is partnering with manufacturers, recyclers, retailers, waste management companies, brand owners, and other organizations to continue making strides toward total packaging recovery. Some examples include The Recycling Partnership (TRP); the Materials Recovery for the Future (MRFF) project; the Hefty ReNew™ Program; the Consortium for Waste Circularity; and the Flexible Film Recycling Alliance (FFRA). All these programs are seeking to increase the collection and recycling of flexible packaging. Also, increasing the recycled content of new products, including packaging, will not only create markets for the products, but will also serve as a policy driver for the creation of a new collection, sortation, and processing infrastructure for the valuable materials that make up flexible packaging.

II. Data Transparency

To build consumer confidence and trust in the recycling system, it is imperative that data points and information is made available to both industry and consumers. We commend the state for providing

the parameters through which they will assess a packaging format's recyclability. But without an understanding of the data behind throughput, marketability and ratio, confidence and buy-in may be lacking. We urge the Department to consider publicly available data sources rather than proprietary data sets. Collective industry efforts to map end markets, evaluate average yield rates and quantify access and recycling rates are available for most packaging materials. To get started, we recommend the Centralized Study on Availability of Recycling by the Sustainable Packaging Coalition (SPC)[1], Stina's Plastics Recycling Data[2], the American Forest and Paper Association (AF&PA) Access to Recycling Study[3] and industry specific data from trade associations or packaging specific industry collaboratives. With multiple data sources, this transparency is necessary for confidence in the system.

III. State Alignment

With seven states now having passed packaging extended producer responsibility (EPR) legislation, and more looking at that and statewide recycling lists, we believe it is imperative that states work collaboratively to harmonize reporting categories and identify ways to streamline recycling market access. Defining material categories differs across states. Changes in descriptions based on color, packaging format, resin etc. can create arduous reporting qualification and muddles the ability for packaging designers to focus in on preferential materials and design formats for recycling. We encourage the Department to work with either Circular Action Alliance (CAA), currently the only packaging producer responsibility (PRO) in the U.S. for packaging, or their peer EPR states, to access and harmonize recyclable packaging category descriptions. This does not mean that Maine needs to change its parameters for recycling, only that we encourage the state to use similar classifications to their its peer states with the own emerging packaging EPR programs.

III. Recyclability of Polyethylene Flexible Films

Flexible films encompass a wide range of resins and materials which make classifying them, as a whole, difficult. There are multi-material films, as well as polypropylene (PP) and polyethylene (PE)-based films. Each format and resin offer different advantages for extending the shelf life of food or

[1] Sustainable Packaging Coalition (2022) Centralized Study on the Availability of Recycling 2020-2021.
[2] Stina (2023) 2022 Plastics Recycling Data
[3] American Forestry and Paper Association (2023) How Does AFPA Calculate Paper and Cardboard Recycling Rates

product protection. While there is diversity for a reason, PE films are widely considered the most utilized resin format for household flexible packaging.[4] As a result of its predominance in packaging, recycling programs for PE films have been long established and we therefore encourage the Department to consider them as recyclable via drop off per the proposed formula for the draft recyclable list

A) **Throughput –** A 2023 study by Materials Recovery for the Future (MRFF) noted that anywhere between 70-100% of the PE film collected via drop of or curbside was able to be recycled into new products.[5] Multiple end markets for these materials are available, ranging from composite lumber or construction materials to reuse back into bags and agricultural films to the creation of raw polymers and storm water management system. 2025 and 2022 studies by AMERIPEN on material specific recycling goals, supply and capacity, note that demand for recycled PE films outstrips supply, pointing to the need to maintain and enhance collection of this material.[6]

B) **Marketability –** More than two end markets exist for this material, demonstrated by the number of retailers and municipalities who collect and sell PE films. A recent report by the Center for Sustainable Materials Management in New York lists film recyclers found in New York State as well as neighboring states—they identify at least ten (10) different companies based in the Northeast who recycle PE packaging.[7] More recyclers exist when we look nationally. The plastics database from Stina, a plastics consulting firm, notes 1,110.3M tons of PE film was recycled across the U.S. in 2022.[8]

C) Ratio – Stina is currently soliciting funding for a national bale composition study, but anecdotal data from film recyclers indicates the majority, if not all, PE film material is recycled. While paper labels are described by APR as detrimental to film recycling, there are still many

[4] Closed Loop Partners (2020) Film Recycling Investment Report
[5] Materials Recovery for the Future (2023) MRFF Final Project Report
[6] AMERIPEN (2024) U.S. Packaging Recycled Content Goals Analysis and AMERIPEN (2022) U.S. Company Recycled Plastic Content Goals Analysis—Supply and Demand
[7] Center for Sustainable Materials Management (2024) Polyethylene Recyclers and Manufacturers in New York States and the Northeast
[8] Stina (2023) 2022 Plastics Recycling Data

end markets that accept these materials with labels included.[9] APR notes that detrimental does not mean it cannot be recycled.

D) Access Rate – Although the Maine criteria does not consider access rates for recyclability, the FTC Green Guides do require access rates to make recyclable claims. A minimum of 60% of the U.S. population must have access to a collection system of any type, for a company to make on-pack education and claims regarding recyclability. We believe DEP should consider aligning with federal guidance to ensure communication with consumers is consistent.

Drop off programs are the primary means of recycling PE films across the U.S. A 2022 study by Eunomia for the period 2019-2020 noted that nationally, 114,000 tons of film were collected via drop-off programs versus 10,000 tons which came in via curbside.[10] This means more films are collected and sent to recycling via drop-off versus curbside at nearly an eleven-fold increase. Therefore, we believe recyclable via drop-off should be the primary metric for evaluating access until such time as investments are made to sufficiently recycle PE films via curbside.

A forthcoming study from the Sustainable Packaging Coalition (SPC) has evaluated national recycling access via store drop off. Their data indicates 70.7% of U.S. consumers are within a 3-mile radius to a drop off location. This data on access rate meets the parameters required by the FTC to make a recyclability claim and thus permits owners of flexible PE films to place a 'recyclable via drop off' label as offered by How to Recycle.

IV. On-Ramps for Emerging Materials

While PE films have a robust recycling system, data is still emerging on alternative flexible packaging. Multi-materials films are recycled by a few end market providers, although collection for these programs is currently restricted to niche subscription services or Hefty Renew™ programs. Polypropylene (PP) flexibles films do not have the collection systems in place in the U.S. but were recently accepted as recyclable within many Canadian packaging EPR programs, and multilayer paper

[9] APR Design Guides
[10] Eunomia (2022) Feedstock Quality Guidelines for Pyrolysis of Plastic Waste

and film packaging is just emerging with more data and strategies needed to understand how it works within our current recycling infrastructure. In all these cases, there are industry collaboratives to grow recycling while recognizing the value these materials bring to reduce food waste, reduce greenhouse gas emissions and create accessible packaging for individuals with physical impairments. As states continue to define what is recyclable, we encourage Maine DEP to align its efforts with insight into what on-ramps can look like. Industry investment to improve recycling will require access to supply. Supply requires opportunities to collect post-consumer materials to ensure we can collect sufficient data to understand what changes and investments would be needed to ensure successful recycling of the materials. Recognizing alternative collection systems within the statewide recycling list and supporting on-ramps is essential to ensure recycling and recyclable packaging design innovation.

VII. Conclusion and Next Steps

Thank you for the opportunity to comment on Maine's process to define a state recycling list and your consideration of our recommendations. If we can provide further information or answer any questions, please do not hesitate to contact me at (602) 540-7544 kfisher@flexpack.org.

Respectfully,

Kyla Fisher
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Flexible Packaging Association