

Testimony in OPPOSITION
to
RI H 7619
in the
House Environment and Natural Resources Committee

March 21, 2024

The Flexible Packaging Association (FPA) is submitting testimony **in opposition to RI H 7619**, which severely limits access to fresh food, particularly in underserved communities, by banning the sale of PVC and PVDC in Rhode Island.

I. Background on FPA & Flexible Packaging

I am John Richard, Director of Government Relations at FPA, which represents flexible packaging manufacturers and suppliers to the industry in the U.S. 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 ensuring the safe, sustainable, and effective delivery of products. While FPA and its members greatly appreciate the deadline extension on unintentionally added PFAS used processing agents, mold release agents, or intermediates to July 1, 2027, the last-minute addition of PVC and PVDC could have profound consequences on food access for Rhode Islanders.

II. PFAS Background & FPA Support for Processing Aid Extension

FPA and its members are aware of the increasing concerns related to Per- and Polyfluoroalkyl Substances (PFAS) as environmental contaminants. This is a complex subject largely because there is no globally consistent convention listing all substances of concern that are part of the PFAS group, and those that are listed do not share all the same risk concerns. Compounding the problem is the effort to arouse public opposition based on similarly incomplete information. This evolving situation has created confusion among many stakeholders along the supply chain, which in turn has driven unfounded, and not necessarily accurate, generalization of these concerns.

The group of PFAS that has been the focus of public and regulatory concern include perfluoro-octanoic acid (PFOA), perfluoro-octane sulfonate (PFOS), perfluoro-alkyl phosphate esters (PAPs), perfluoroalkyl carboxylic acids (PFCAs) or perfluoroalkyl sulfonates (PFSAs). It is believed that these environmentally more prevalent and persistent perfluoroalkyl substances are not intentionally added to flexible packaging products.

The PFAS in use in flexible packaging are typically referred to as fluoroelastomers. These compounds have been used for years as polymer processing aids to improve the runnability for the production of films. The fluoroelastomer polymers used as processing aids are made from the monomers vinylidene fluoride, hexafluoropropylene and/or tetrafluoroethylene. These substances are authorized for food contact use in various jurisdictions as follows:

- Authorized in the EU by Regulation 10/2011 for use in all types of food contact plastic and all food applications, subject to specific migration limits;
- Authorized in the US for direct food contact by regulations 21 CFR 177.1380 or 177.1550 and various FCNs; and
- Permitted in China: listed in GB 9685-2016 and GB 4806.6-2016;

FPA therefore, generally opposes blanket PFAS bans that do not target specific chemistries based on scientific data. Moreover, the current test used for PFAS is a broad total fluorine test, often with a low

de minimis level of 100ppm. The use of this test equating all fluorine to PFAS is not scientifically valid as fluorine is ubiquitous in the environment and the test does not accurately distinguish between types of fluorine. However, as these fluoroelastomer polymers, continued to be grouped into the broadest PFAS definition, the flexible packaging industry continues to work towards alternate materials for PPA, to support “broadest” definition of PFAS as identified in current or future state laws. The new July 1, 2027, deadline for PFAS used as processing aids reflects a real-world timeline during which our members can reformulate their processing aids.

III. PVC and PVDC Are Critical Products for Preserving Food

H 7619 prevents FPA's members from selling or distributing into commerce any packaging, packaging component or reusable packaging that contains polyvinyl chloride (PVC) or polyvinylidene chloride (PVDC). FPA's members utilize PVC and PVDC to create highly engineered packaging used to preserve fresh food. PVC and PVDC are frequently found in films used to protect dairy, fresh meat, nuts, and vegetables in a process called modified air packaging (MAP).

MAP is unique among packaging technologies because it allows for products to be tailored to the biodiversity of food. Most fruits and vegetables lose their freshness when the water loss is 3%–10% of their initial weight. The shelf life of fruits and vegetables can be extended by slowing down respiration and minimizing water loss. Proper MAP will restrict the rate of water loss to control the relative humidity around the produce, and decrease the respiration rate of the produce, slowing ripening rates in fruit and the activity of decay-causing organism's to further extending shelf life. This has allowed fresh-cut processors to begin providing a much greater diversity of products, which now includes products like artichoke hearts, baby salad greens, sliced strawberries, among countless more. Films for low, medium, and high respiration rate commodities are now available.

Extending the shelf life of meats is very different than fruits and vegetables. Rather than water and respiration playing the primary role in spoilage, lipid oxidation and bacterial growth plays the critical role. In terms of nutrition lipids provide essential fatty acids, fat soluble vitamins, omega-3 fatty acids, and linoleic acid. While nutritionally beneficial, the oxidation of lipids gives rise to rancid odors and flavors, texture changes and nutritional losses. Oxygen is also the essential gas used metabolically by aerobic spoilage bacteria and pathogens, a key food safety concern. The flexible packaging solution for meats therefore involves chilling and limiting oxygen to extend shelf-life. There is no viable alternative that can keep meat fresh with the same shelf life, but some of our members are in the initial phases of exploring polyethylene alternatives.

According to existing peer-reviewed literature, MAP keeps fruits and vegetables safe to eat by an average of 19 days with some extensions, and the life of table grapes alone, up to ninety days. Meats generally stay safe to eat for an additional nine days, with the largest increase in freshness being ground beef at 17 days. FPA's report only had peer-reviewed data for one type of cheese – provolone, which was safe to eat for a staggering 90 additional days.

Preventing food loss and waste is only one environmental benefit flexible packaging provides to the food system. FPA member company, StePacPPC detailed the reduction in carbon footprint associated with the use of its MAP packaging technology for preserving the quality of fresh produce in many different supply chains. In one case, the use of MAP technology for green beans shipped from Guatemala to Miami enables transport via container ship instead of by air, reducing the carbon footprint by 65,232 CO₂ equivalents per container load, which is equivalent to the annual CO₂ emissions of 20 typical passenger vehicles.

Thus, the real-world effects of banning PVC and PVDC may include additional CO₂ emissions associated with the entire food supply chain, limiting fresh food access to areas near where food is produced or to communities with enough resources to expedite shipping, and supply chain turmoil at the grocery store while several industries scramble to formulate alternative packaging that will likely not be as effective at preserving food.

IV. Conclusion & Next Steps

For these reasons, FPA opposes the current H 7619 but stands to work on a version that preserves the extension of the PFAS processing aid deadline. In advance, thank you for your consideration. If we can provide further information or answer any questions, please do not hesitate to contact me at (443) 534-3771 or jrichard@flexpack.org.

Respectfully,

A handwritten signature in cursive script that reads "John J. Richard".

John J. Richard
Director, Government Affairs
Flexible Packaging Association