



July 18, 2022

Kerri Malinowski
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333

Re: Concept Draft for the Maine PFAS in Products Program

Dear Ms. Malinowski,

Thank you for the opportunity to comment on the Maine Department of Environmental Protection concept draft for the PFAS in Products Program.

Whirlpool Corporation (“Whirlpool”) is committed to being the best global kitchen and laundry company, in constant pursuit of improving life at home. In an increasingly digital world, the company is driving purposeful innovation to meet the evolving needs of consumers through its iconic brand portfolio, including Whirlpool, KitchenAid, Maytag, Consul, Brastemp, Amana, Bauknecht, JennAir, Indesit and Yummly. The company is headquartered in Benton Harbor, Michigan, with approximately 25,000 U.S. employees, including approximately 15,000 manufacturing employees in Ohio, Iowa, Tennessee, Oklahoma and Massachusetts.

Public Law 2021, Chapter 477 provides the Department of Environmental Protection (“the Department”) the authority to exempt products from prohibition if there is a currently unavoidable use determination. The Department took the first step in releasing the concept draft that defines an alternative to a PFAS chemical as “a substance or chemical that, when used in place of PFAS, results in a functionally similar product and that, when compared to a PFAS that it could replace, would reduce the potential for harm to human health or the environment, or has not been shown to pose the same or greater potential for harm to human health or the environment as that PFAS.”

I. The Department should consider the extent to which non-PFAS materials are easily substitutable when considering viable alternatives.

Whirlpool agrees that an alternative should only be considered as a substitute for a product that contains PFAS if it reduces the risk to human health and the environment. Whirlpool also requests that, when determining the viability of an alternative, the Department takes into account the extent to which the alternative material is easily substitutable. We strongly encourage the Department to further clarify the definition of “Alternative” by adding to the definition: “Alternative” does not include a substance that is not easily substitutable with PFAS for reasons including, but not limited to, incompatibility with product design or existing manufacturing processes.

For example, Whirlpool currently uses Hydrofluoroolefin (HFO) foam as insulation in North American residential refrigerating and freezing products. The HFO foam technically falls under the definition of PFAS, as defined in Public Law 2021, Chapter 477. For Whirlpool to transition to cyclopentane (“C-Pentane”) blowing agents, the next best alternative to the current HFO foam, both a redesign of products and major changes to manufacturing facilities would be required. The inferior energy efficiency performance of C-Pentane would require thicker refrigerator walls and doors to achieve similar efficiency performance to meet federal efficiency requirements, which also reduces the interior volume and capacity of refrigerators and freezers for consumers. In addition, C-Pentane, unlike HFOs, is a highly flammable hydrocarbon and requires robust safety precautions at manufacturing facilities, including, but not limited to, the security of large quantities of flammable substances, building enhancements to ensure adequate ventilation at each production line foaming area and the creation of no-spark zones in the proximity of each cabinet and door foaming area.

II. HFO blowing agents should be excluded from PFAS regulations because they are not toxic, bioaccumulative or persistent.

Whirlpool met with the Department on April 13, 2022, to discuss the use of HFO foam blowing agent Honeywell Solstice HFO-1233zd(E) for insulation in our refrigeration products. The broad definition of PFAS in the statute includes HFOs, despite the fact that HFOs do not pose risks to human health and the environment like traditional PFAS chemicals, such as PFOA and PFOS. In fact, HFOs are not persistent, bioaccumulative or toxic¹. HFOs are listed on the TSCA inventory and are on the EPA’s Significant New Alternatives Policy program to replace ozone-depleting substances. Whirlpool believes HFOs should be exempted because they present none of the harmful long-term human or environmental effects the legislation seeks to address from other PFAS chemicals.

III. HFOs have superior energy efficiency and environmental characteristics.

HFOs have extremely low global warming potential, making them essential for applications such as refrigeration, air conditioning and building insulation by providing life-cycle sustainability benefits that support US and global climate ambitions. The best currently available alternative to HFO foam insulation, C-Pentane, has 11 times greater global warming potential as compared to HFOs. Switching to C-Pentane would also result in a loss of 12-15% of insulation performance, meaning it will require more energy to operate the appliances. It is clear from a health, environment and sustainability perspective that HFO foams are the best solution currently available.

IV. It is critical for the Department to make a timely decision on an HFO exemption.

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<https://sustainability.honeywell.com/us/en/news-and-events/news/2020/06/the-environmental-benefits-of-hfos>

Without an exemption for HFO foam blowing agents, multiple years of planning and investments would be required to transition all of our production facilities that supply the U.S. market and implement redesigns of entire lines of refrigerator, freezer and icemaker products. Electrical components would have to change to be compatible with a flammable material, and the wall and door dimensions of our refrigerators would have to increase to accommodate a less efficient insulator. Due to the magnitude of this regulatory requirement, Whirlpool would like to emphasize again how critical a timely decision on exemptions is for our business operations.

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Whirlpool appreciates the opportunity to comment on the concept draft and highlight how there is no environmentally superior alternative for the HFO foam based on the Department's proposed definition. Please do not hesitate to contact me at ross_i_olchyk@whirlpool.com or 202-860-7371 if you have any questions or need additional information.

Sincerely,
Ross Olchyk
Manager, Government Affairs