Honeywell

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

**Re:** **Maine Department of Environmental Protection (MDEP) Proposed PFAS In Products Rule; Chapter 90: Products Containing Perfluoroalkyl and Polyfluoroalkyl Substances**

Dear Ms. Kerri Malinowski Farris,

Honeywell appreciates the opportunity to comment on the PFAS In Products Rule; Chapter 90: Products Containing Perfluoroalkyl and Polyfluoroalkyl Substances ("proposal" or "proposed rule"), which provides for the implementation of *"Act to Amend the Laws Relating to the Prevention of Perfluoroalkyl and Polyfluoroalkyl Substances Pollution and to Provide Additional Funding*" (LD 1537).

Honeywell is an integrated operating company serving a broad range of industries and geographies around the world. Honeywell manufactures various fluorinated gases, including hydrofluorocarbons ("HFC"), hydrochlorofluoro-olefins ("HCFO"), hydrofluoroolefins ("HFO") fluorocarbons and their mixtures ("Blends"). These fluorinated gases are used in refrigeration, heating, ventilation and air conditioning ("RHVAC"), mobile air conditioning ("MAC"), thermal management systems ("TMS") in electric vehicles ("EV"), propellants in metered dose inhalers ("MDI") and insulation foam blowing agent applications. Honeywell also produces a fluoropolymer - polychlorotrifluoroethylene ("PCTFE") - used in the primary and secondary packaging of medicinal products, medical devices, and over-the-counter ("OTC") medications.

Honeywell submits the following summary remarks in response to Maine DEP's proposal and solicitation for feedback, which are discussed further in the subsequent pages**:**

1. Honeywell is seeking definitional clarity on: reasonably available, manufacturer and unit
2. Maine DEP should establish clear reporting ranges for PFAS testing to ensure accurate identification and quantification of these compounds
3. Honeywell supports maintaining internal testing capabilities to support the data required for compliance using Commercially Available Analytical Methods
4. DEP should accept Currently Unavoidable Use (CUU) applications for 2040 ban categories earlier than 36 months prior to sales prohibition and make initial CUU determinations as soon as possible ahead of the prohibition
5. The DEP CUU determination program should align with existing federal and international policies to ensure coherence and avoid duplication of efforts
6. The DEP should enable confidential information in the review of CUU determinations and ensure information protection to allow comprehensive reviews

Should you have any questions regarding our submission please don't hesitate to get in touch with us.

Sincerely,

Atashi Bell, PhD
Senior Director, Global Government Relations, Atashi.Bell@Honeywell.com

Honeywell

1. **Honeywell is seeking definitional clarity on: reasonably available, manufacturer and unit**

    a. **Reasonably available**

The proposed definition for "reasonably available" should include considerations such as safety, energy efficiency, toxicity, flammability, and supply chain considerations. Honeywell suggests that the definition and interpretation of reasonably available should consider not only the comparative cost of PFAS alternatives to the existing PFAS on a per-volume basis, but also the costs related to the manufacturing process and the necessary equipment modifications required to implement these new PFAS alternatives. This would account for the potential consequences of less energy efficient equipment, including the energy cost differential and the demand on the energy grid should a reasonable alternative, as per the Maine definition, be readily available.

Honeywell recommends increasing the scope of costs within the definition of "reasonably available." When considering costs, DEP should account for increased costs in the manufacturing process, to small businesses, and to end-users. High costs create barriers to adoption and may severely impact end users and consumers with limited financial resources. Evaluating costs will allow DEP to assess the economic feasibility, or reasonableness, of transitioning to alternative substances and will ensure that feasible alternatives are identified where needed. For example, most of the foam blowing insulation contractors, such as spray foam contractors, reliant on HFOs based insulation are characterized as small businesses. These enterprises often operate on a local or regional scale, providing insulation services to residential, commercial, and industrial clients. Due to the specialized nature of their work, these contractors typically have limited resources and may face challenges in transitioning to alternative blowing agents.

Finally, DEP should consider establishing a transparent and well-defined framework in making its determination of the reasonable availability of alternatives. Subsection (i) of the American Innovation and Manufacturing Act of 2020 (AIM Act)[1], entitled "Technology Transitions," may serve as a useful example of criteria that an alternative must meet prior to establishing restrictions on the use of a substance being substituted. Under this provision, the Environmental Protection Agency (EPA) is required to consider "the availability of substitutes for use taking into account technological achievability, commercial demands, affordability for residential and small business consumers, safety, consumer costs, building codes, appliance efficiency standards, contractor training costs, and other relevant factors…"[2] Honeywell urges the Maine DEP to consider adopting a similar approach in assessing substitutes to PFAS and identifying the key criteria for reasonably available alternatives as the AIM Act. Maine DEP could consider bridging approvals from the AIM act program for their alternative solutions or adopting a similar framework. [3]

    a. **Manufacturer**

Further clarification on the term "manufacturer" will help identify which party is responsible for reporting. The term "manufacturer" includes the entities that manufacture a product or whose brand name is legally affixed to the product. However, there are numerous circumstances when two different entities meet that definition: one may manufacture the product and the other may legally affix their name to the product. In such circumstances, it

[1] https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title42-section7675(a)&num=0&edition=prelim
[2] https://www.govinfo.gov/content/pkg/USCODE-2020-title42/html/USCODE-2020-title42-chap85-subchapVII.htm
[3] https://www.govinfo.gov/content/pkg/USCODE-2020-title42/html/USCODE-2020-title42-chap85-subchapVII.htm

is not clear who the "manufacturer" is and therefore which entity has the reporting requirement. Therefore, the proposed regulation should include a clarifying note and examples of other situations where multiple entities can be the manufacturer to avoid reporting the same materials multiple times.

**d. Unit**

The meaning of a "unit" should be clarified for chemical producers (Section 3A(1)(b)). The proposed regulation should clarify the meaning of "unit" within the description of the requirement for direct manufacturers to report the total number of units sold annually in the State of Maine or nationally. Honeywell recommends that "unit" for chemical producers be total volume by weight sold. Total number of units sold annually can have a variety of meanings depending on the product or product component—for chemical producers, for example, product is typically sold through cylinders and containers of different sizes. The fluorocarbon is then used in an end-product where it is counted again as a unit. Therefore, it would be important to clarify this for manufacturers to ensure consistency across reports.

**2. Maine DEP should establish clear reporting ranges for PFAS testing to ensure accurate identification and quantification of these compounds**

Maine DEP should outline the standards and goals that the PFAS testing is intended to address. There are many commercial PFAS compounds that are proprietary chemicals, for which there are no commercially available analytical methods. Without analytical standards to test for these proprietary chemicals, commercial laboratories may not be able to sufficiently quantify the PFAS ranges in their products, and unintentional omissions may occur. Determining exact PFAS concentrations for complex articles in robust supply chains like automotive or aerospace which are often wholly dependent on full material supplier disclosure and product knowledge. There could be instances where suppliers do not disclose certain information and unintentional omissions may occur. To ensure these manufacturers comply with the reporting requirements, the department should establish clear methods, standards, and approved reporting ranges for known PFAS compounds where identification and quantification is possible.

**3. Honeywell supports maintaining internal testing capabilities to support the data required for compliance using Commercially Available Analytical Methods**

In order to meet the obligations under this rule and facilitate compliance, Honeywell recommends DEP allow for both in-house and external testing. First, external testing can result in the following issues: samples may become contaminated in transit, there may be delays in data turnaround time, and there is limited visibility when assessing errors. To ensure quality control and reliable results, Honeywell prioritizes robust internal testing capabilities and industry standard certifications to ensure that any data reported is repeatable, reproducible and well documented. As such, Honeywell recommends retaining internal testing as an acceptable path to compliance within the proposed rule.

Further, Honeywell's internal laboratory facilities maintain widely recognized quality standards of ISO 90001 and, for products entering the automotive market, IATF 16949. These facilities have the testing capabilities to utilize any commercially available analytical methods identified to assess the required PFAS requirements as outlined in the proposed rule. Honeywell's testing facilities have the equipment capabilities to address the reporting

requirements outlined in section (3)(A)(e) of the proposed rule. For example, gas chromatography equipped with various detectors, such as flame ionization, thermal conductivity or mass spectrometry, is used for impurity analysis of products and all calibration of gasses are connected to the National Institute of Standards and Technology (NIST) standards. To further showcase the sophistication of testing and method development capabilities, Honeywell has developed commercially available analytical methods that exceed industry standards when it is noted that industry standard methods are not incorporating the best currently available science. These methods and our quality programs, when appropriate, are audited by non-governmental agencies to ensure appropriate rigor and accuracy.

For these reasons, Honeywell supports allowing for the flexibility of internal and external testing.

4. **DEP should accept CUU applications for 2040 ban categories earlier than 36 months prior to sales prohibition and make initial CUU determinations as soon as possible ahead of the prohibition**

Accepting applications earlier than the proposed timeframe will provide greater certainty to the market. An unfavorable CUU determination and sales prohibition could disrupt the market and impact Maine businesses and consumers. Allowing more lead time for CUU determinations will enable industry to ensure the continued availability of critical solutions, while providing ample time to develop new, non-regrettable substitutions that can be readily adopted by the consumer. Significant time is needed to transition to alternative chemistries, with some applications needing several decades, as evidenced by the industry transition from Halon-Based applications.

**Industry Example: Halon-Based Applications**

Halons are an industry application example of ozone-depleting substances with an essential use exemption under the Montreal Protocol. Despite decades of innovation efforts by the Aerospace and Defense (A&D) industry to replace them, the only resultant solution, Halon 1211, would be deemed a 'regrettable substitution' based on Maine's definition of PFAS, thus making the 'new' solutions non-viable. The A&D industry successfully substituted Halon 1211 in portable (handheld) and lavatory receptacle extinguishers used in commercial aircrafts and is working to substitute halons in commercial aircraft fire suppression systems. Without the new Halon 1211 substitutes, this industry would be left without an effective solution to fire safety as innovation for new solutions could take an indeterminate amount of time.

This example underscores the critical need for extended lead times when transitioning from established essential solutions. Accepting CUU applications earlier than 36 months prior to the applicable sales prohibition will give industries sufficient time to develop and implement new, non-regrettable substitutions while maintaining the availability of critical solutions.

5. **The DEP CUU determination program should align with existing federal and international policies**

Coordination with other domestic programs, such as those established by federal agencies like the EPA, is recommended to ensure coherence in regulatory frameworks and prevent duplication of efforts. Other PFAS essential use determinations that can be relied on by the DEP include the EPA's Significant New Alternatives Policy (SNAP) Program, EPA's new chemical review program under Section 5 of the Toxic Substances Control Act

(TSCA) , the Federal Food, Drug, and Cosmetic Act (FFDCA), and other federal programs whereby either the PFAS, or products containing them have been deemed acceptable for their intended use through risk assessments by federal agencies. PFAS-containing products that are subject to, or necessary for, meeting federal specifications (e.g., military specifications, United States Federal Aviation Administration (FAA) standards, or NASA requirements) should also be considered currently unavoidable use. Such an approach will help Maine DEP concentrate its efforts on non-essential uses within consumer products. This approach also provides fairness and market stability for businesses that have successfully completed federal reviews for their PFAS-containing products under these federal programs. The approach will also ensure the continued availability of products that must meet military, technical, or similar government specifications.

**EPA SNAP Program**

Maine DEP could consider modelling or bridging their determination approach to the EPA's SNAP program, which operates as a regulatory framework aimed at identifying and promoting the use of environmentally preferable alternatives to ozone-depleting substances (ODS) and high-global warming potential (GWP) substances in various sectors. SNAP is designed to ensure the adoption of the best refrigerants across viable sectors:

- **Identification of Alternatives:** SNAP assesses potential substitutes for ODS and high-GWP substances used in refrigeration, air conditioning, and other applications. It evaluates the environmental impact, safety, and efficacy of these alternatives to determine their suitability for specific sectors.
- **Regulatory Determination:** Based on its evaluation, SNAP issues regulatory determinations that categorize alternatives as acceptable, unacceptable, or acceptable subject to use conditions. Acceptable alternatives are those deemed environmentally preferable and safe for use, while unacceptable alternatives are prohibited.
- **Sector-Specific Guidelines:** SNAP develops sector-specific guidelines and regulations to guide the use of acceptable alternatives in various applications. These guidelines may include usage restrictions, performance standards, and reporting requirements to ensure proper implementation and monitoring.
- **Stakeholder Engagement:** The SNAP program engages stakeholders, including industry representatives, environmental advocates, and scientific experts, throughout the decision-making process. This collaboration helps to gather input, address concerns, and foster consensus on the adoption of alternative refrigerants.
- **Technology Assessment and Innovation:** SNAP encourages ongoing research and development of new refrigeration technologies and alternative substances with lower environmental impact. By promoting innovation, the program seeks to continually improve the availability and performance of environmentally friendly refrigerants across different sectors.
- **Compliance Monitoring and Enforcement:** SNAP monitors compliance with its regulations and guidelines through inspections, data reporting requirements, and enforcement actions against violators. This helps to ensure that the best refrigerants are used in every viable sector while deterring the illegal use of prohibited substances.

Harmonization with existing criteria is crucial to maintain consistency in regulations, promote efficiency, and avoid conflicting requirements that could hinder effective environmental protection efforts such as ozone layer protection.

6. **The DEP should enable confidential information in the review of CUU determinations and ensure information protection to allow comprehensive reviews**

Much of the data needed to analyze a CUU determination will be trade secret and otherwise business confidential. Honeywell recognizes the difficulty Maine DEP faces in its effort to develop and implement unavoidable use criteria through public rulemaking. The agency must find a balance between protection of the environment and burden to industry while staying consistent with existing confidentiality statutes. Maine Title 10, §1542 trade secret is defined as "information, including, but not limited to, a formula, pattern, compilation, program, device, method, technique or process, that: A. Derives independent economic value, actual or potential, from not being generally known to and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use;" Maine DEP should apply this standard and pre-identify within the rule categories of information provided under the Maine Statute as trade secret and not publicly available. Maine should outline a methodology which allows for proprietary information to be shared in confidence with the state without being made public during the rulemaking process, so that a comprehensive review can be conducted.

**Conclusion**

Honeywell appreciates the opportunity to submit comments to the Maine Department of Environmental Protection. We hope that the CUU criteria are adequately protective while also fostering innovation and promoting economic opportunity within the state. Honeywell appreciates DEP's consideration of these suggestions and would be glad to participate in further discussions about these comments and we look forward to reviewing and commenting on the proposed rule.