Alex McIntyre

Who is commenting? *(choose the best fit)*
Representative of a product manufacturer(s)

If you are commenting as a representative, what is the name of the entity you are commenting on behalf of?
Window & Door Manufacturers Association (WDMA)

If you represent a product manufacturer or industry group, what industry(ies) do you represent?
Window, door, and skylight manufacturing industry.

If you represent a product manufacturer, what types of components, products, or product categories do you manufacture that you will be requesting a CUU determination for?
The Window & Door Manufacturers Association (WDMA) represents manufacturers of windows, doors, skylights, and components and subassemblies of those products used in residential and commercial buildings. To the extent CUU requests are needed, they would likely concern these product families and related components where PFAS currently supports required product performance.

Do you have any recommended changes or other considerations that you think the MPCA should take into account when defining the term "essential for health, safety, or the functioning of society"? *(Please review the proposed definitions in the rule concept document prior to answering)*
The definition should make clear that products and components essential to providing shelter and maintaining building enclosure performance can qualify as essential for health, safety, or the functioning of society. That includes windows, doors, and skylights that protect against air, moisture, and water intrusion, contribute to energy efficiency, and support longevity and durability. The agency should also apply the definition using the best available science and recognize that PFAS uses do not all present identical risk profiles.

Do you have any recommended changes or other considerations that you think the MPCA should take into account when defining the term "alternative"? *(Please review the proposed definitions in the rule concept document prior to answering)*
“Alternative” should mean a non-PFAS chemical, material, process change, or non-chemical design change that delivers functionally equivalent performance in the actual end use without causing unintended harm to product quality, durability, accessibility, code compliance, or building enclosure integrity. A substitute should not be treated as an acceptable alternative unless it can perform under the same performance conditions and

maintain the same required product function in the field, not simply in theory.

Do you have any recommended changes or other considerations that you think the MPCA should take into account when defining the term "reasonably available"? (*Please review the proposed definitions in the rule concept document prior to answering*)
“Reasonably available” should reflect real-world commercial availability, not merely theoretical existence. The definition should account for sufficient quantity, supplier readiness through Tier 2 and Tier 3 supply chains, time needed for qualification and validation, and whether the alternative can satisfy applicable performance requirements for equivalent products. An alternative should not be considered reasonably available simply because it is used somewhere else in a non-comparable product or niche application.

When considering the proposed definition of “product category”, how broadly should the agency group product categories? *(Examples: “vehicles” versus “sedans, SUV’s, vans, trucks, RV’s” or "printers" versus "receipt printers, thermal printers, label printers, residential printers, commercial printers, etc.")*
Product categories should be broad enough to avoid requiring separate CUU requests for every custom size, SKU, option, or other variation that does not change the product’s primary function. Broad product categories are important to reduce unnecessary complexity and administrative burden, allowing products with similar functions and performance requirements to be evaluated consistently without requiring duplicative or overly specific assessments.

Should each request for a CUU determination be limited to a single product category, or should applicants be allowed to submit a request for a CUU determination for multiple product categories?
Applicants should be allowed to submit one request covering multiple related product categories where the PFAS function, performance requirements, and alternatives analysis are materially the same. MPCA could allow a common core submission with category-specific appendices rather than forcing duplicative filings.

What safety or other standards require the use of PFAS in a product? *(Please include the specific citation)*
Building and fire codes, including the International Building Code (IBC) and International Wildland-Urban Interface (IWUI) Code, establish minimum performance requirements related to ignition resistance, fire spread, and overall material performance.
PFAS-containing coatings are commonly used to help products meet these performance benchmarks, particularly in standardized fire and durability testing. In addition, PFAS is widely used in electronic components and circuit protection applications to enhance resistance to moisture and condensation, thereby reducing risks associated with electrical failure, shock, and fire.

In addition, the Minnesota 2020 Residential Code (Sections R308.6.9 and R609.3) and the 2020 Building Code (Sections 1709.5.1 and

2405.5), require windows, doors, and skylights to be in compliance with AAMA/WDMA/CSA 101/I.S.2/A440, also known as the North American Fenestration Standard (NAFS). The standard establishes levels of performance for windows and doors, including minimum performance requirements for many materials and components (eg, hardware, factory-applied coatings and finishes). PFAS alternatives will need to be developed (or product designs will need to be changed significantly) to continue to meet performance levels currently being sold in the marketplace.

The agency is seeking feedback on the potential that the initial positive CUU determination duration for existing products will expire eight years from the date of issuance regardless of product category. This is intended to stagger renewal deadlines and ease the administrative burden of processing renewals.

- Do you have any concerns about unintended consequences with this proposal?
- Do you have any alternative recommendations to stagger renewal deadlines?

A single eight-year initial duration regardless of product category could create unintended consequences if the renewal cycle does not align with different product validation cycles, code cycles, or supply-chain transition timelines. A more workable approach would be to stagger initial renewal dates by broad product sector, product family, or cohort year rather than assuming one fixed duration is optimal for every category. The renewal framework should support orderly compliance and minimize unnecessary duplication.

The MPCA has developed a preliminary list of potentially eligible data categories that may be considered for trade secret requests. *(Please review the rule concept document for the list of potentially eligible data)*

- Do you have any concerns about unintended consequences with this proposal?
- Do you have any alternative recommendations for data that should or should not be eligible for trade secret requests?

WDMA supports robust trade-secret protections for proprietary information, including chemical names and identifiers, concentrations or formulas, reformulation/redesign details, and specific supply-chain information, where disclosure would reveal confidential business information. Without strong protections, manufacturers may face competitive harm, public misinterpretation, and increased litigation risk. The process for seeking confidential treatment should be streamlined, clear, and consistent with federal approaches such as TSCA, and the agency should allow meaningful public substitutes and, where appropriate, anonymized coding to protect sensitive information.

What are the potential ongoing costs to society if the commissioner issues a positive currently unavoidable use determination for the continued use of PFAS within a product or product category? *(For example: environmental, human health, or remediation costs)*

A CUU determination has the potential to affect the housing affordability crisis by influencing the cost, availability, and performance of essential building materials. Providing PFAS-free alternatives should not assume cost neutrality, as substitutes may be more expensive or less efficient to implement. A balanced CUU framework is important to prevent unintended impacts on housing affordability while continuing to advance environmental and public health objectives.

WDMA believes a positive CUU determination can balance environmental and public health goals with the need to maintain product safety, durability, performance, and availability where viable alternatives do not yet exist.

For manufacturers: Administrative cost of requesting a CUU determination (Part 1 of 2). *Please provide your best estimates or rough orders of magnitude (for example "approx. 200 hours"). Precise accounting data is not necessary to answer this question.*

If your company currently possesses information regarding intentionally added PFAS (to the CAS number level) for all components in your product lines, please estimate the number of technical staff hours that were required to establish this baseline.
Not applicable

For manufacturers: Administrative cost of requesting a CUU determination (Part 2 of 2). *Please provide your best estimates or rough orders of magnitude (for example "approx. 200 hours"). Precise accounting data is not necessary to answer this question.*

If your company does not possess information regarding intentionally added PFAS (to the CAS number level) for all components in your product lines, please estimate the number of technical staff hours needed to obtain this data from your Tier 2 or 3 suppliers for a single product line.
Other (please specify)
Based on member experience, it is common for manufacturers of windows, doors and skylights to dedicate full-time technical staff to identifying and tracing PFAS across their product portfolios. This represents approximately 2,000 staff hours annually devoted to PFAS-related compliance activities. Members report that a substantial portion of this effort is spent engaging with Tier 2 and Tier 3 suppliers to obtain chemical composition data at the CAS number level, including repeated outreach, supplier education, and data validation.

For manufacturers: Expenditure considerations when seeking non-PFAS alternatives (Part 1 of 2). *Please provide your best estimates or rough orders of magnitude (for example "primary cost is CapEx"). Precise accounting data is not necessary to answer this question.*

If you have identified a technically viable non-PFAS alternative for one of your products that contains intentionally added PFAS, does implementing this alternative require Capital Expenditure (such as purchasing new molds, retooling machinery) or primarily Operational Expenditure (such as purchasing more expensive raw materials)?

- Please estimate the ratio of Capital Expenditure to Operational Expenditure (or indicate which category is the dominant cost driver).

At a minimum, transitioning to PFAS-free materials is likely to require capital expenditures, as alternative materials, parts, and components would need to undergo testing to demonstrate equivalency to those currently used in the supply chain. In many cases, this would also necessitate additional product-level testing, including fire performance testing, which can be both time- and resource-intensive. Further, material or product changes often trigger the need for third-party validation and updates to existing certifications, such as UL listings related to fire and electrical safety. Maintaining these certifications following any reformulation or redesign can result in significant additional costs for manufacturers.

For manufacturers: Research and development safety validation cycles.

What is the typical duration of the R&D and safety validation cycle for a reformulated product in your sector (from concept to market entry)?

Does this cycle align with the 5-year renewal period typically associated with regulatory exemptions?

- If not, please explain the specific technical barriers that would require a longer validation period.

Based on member experience, research and development (R&D) and product safety validation cycles for complex manufactured goods typically range from 3 to 7 years, and may extend longer depending on product complexity. These processes are iterative and include material selection, supplier qualification, performance testing, and compliance validation.

For windows, doors and skylights, which are designed for long-term outdoor and structural use, weathering and durability testing alone can take up to 10 years to fully validate long-term performance. Accelerated testing methods are not always sufficient to replicate real-world conditions or meet certification and warranty requirements.

Do you have any additional questions or comments regarding the PFAS in products: Currently unavoidable use rule? *(Please note that we may be unable to respond to specific questions regarding rule content in this phase of the rulemaking process)*

WDMA recommends that the agency clarify key definitions to ensure consistent interpretation and implementation, and coordinate CUU requirements with related reporting obligations to avoid duplication and streamline compliance. The framework should also ensure robust protection of confidential business information, account for highly configurable products and complex, multi-tiered supply chains, and recognize building products as essential uses where they support shelter, safety, accessibility, durability, and energy efficiency.
