Ben Madison

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?
Grundfos Americas Corporation

If you represent a product manufacturer or industry group, what industry(ies) do you represent?
Pump, pump system, and water treatment manufacturer focused on the domestic buildings, commercial buildings, industrial, and water/wastewater sectors.

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?
Pumps, pump systems, water treatment systems, and associated accessories and components (e.g. valves, tanks, piping accessories, sealing materials, electronics).

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)*
Grundfos finds the proposed definition likely to create confusion in the market, specifically where MPCA includes the statement "…would cause the product's service to be unavailable".

Grundfos recommends MPCA rely on the term "intended use" to clarify what must be unavailable by modifying the definition as follows:

"…such that the unavailability of the PFAS for use in the product would cause the intended use of the product to be unavailable, which would result in:…"

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)*
Grundfos believes MPCA including an explicit list of potential "alternatives" creates multiple issues:
a. Scenario where a other alternative options that are explicitly listed could be ignored since they do not appear in the definition.
b. An explicit list appears to mandate a complete assessment of all listed options without regard for the usefulness and need for all of these assessments. Not all uses of PFAS are suited to have potential alternatives across these defined categories.

To remedy this, MPCA should state the potential options for determining if an alternative exists and use the listed items as

examples instead of an explicit list.

Finally, Grundfos notes that Maine, New Mexico and the EU are also working on similar PFAS programs, including CUU programs, and we believe MPCA should align definitions accordingly.

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*)
Grundfos believes that MPCA's assertion that any alternative being used in comparable products is considered reasonably available ignores the fact that patents and IP rights can limit market access to these potential alternatives.

To remedy this concern, MPCA should include the term "commercially available" in the definition. We also see clarification needed in the last sentence:

"Reasonably available" means that one or more alternatives to a PFAS can perform comparably to the PFAS being considered for replacement in a product or component and is currently commercially available in sufficient quantity. PFAS alternatives that are in use in equivalent products or components, and are commercially available, are considered "reasonably available." Reasonable availability may change at any time as a result of new research or innovation.

Finally, Grundfos notes that Maine, New Mexico and the EU are also working on similar PFAS programs, and we believe MPCA should align definitions accordingly.

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.")*
The exclusionary statement "…does not mean variations within a product that do not affect the product's primary function" creates misunderstanding because it is in the negative. Grundfos believes the intent here is to state that variations in a product that do not affect primary function can be grouped into a single product category. MPCA should edit this portion of the definition to make the intent clear.

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?
Grundfos believes that this should be allowed because different product categories can use the same PFAS components and serve the exact same purpose but would be separate categories given they cannot functionally replace each other.

For example, multistage pumps and centrifugal pumps both use fluoropolymer/elastomer seals in harsh environments, and are both used in the same pumping systems (e.g. water systems), but they are not directly interchangeable so they cannot be a single product category.

Additionally, Grundfos believes MPCAs CUU program will create a CUU application process that grows exponentially through the supply chain. Using FKM O-rings and gaskets as an example, the original manufacturer of the resin must get CUUs for all potential use cases. Then, the O-ring/gasket manufacturer must also get CUUs for all potential use cases.

Then, every additional step in the supply chain where these are used must also submit applications for CUUs. For each step in the supply chain, as the O-ring is integrated into higher- and higher-level products, the number of CUU applications grows exponentially.

The EU has addressed this concern by regulating different sectors of industry (e.g. transportation, sealing, mechanical equipment, etc.) and MPCA should consider a similar sector-based approach to CUUs in Minnesota.

What safety or other standards require the use of PFAS in a product? *(Please include the specific citation)*
UL 94 is one standard where PFAS can be necessary. One explicit example is Washington State DOE's Safer Products, Cycle 1 restriction on Organohalogen Flame Retardants (OFRs) in indoor electronic enclosures. They specifically aligned fluorine testing presumptive limits to account for the need of PFAS as an anti-drip agent since PFAS is necessary with the alternate flame retardants to meet UL 94 anti-drip flammability requirements.

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?

Do you have any concerns about unintended consequences with this proposal?
Grundfos' primary concern is that the proposed plan does not appear to take into account that the cost of a CUU is not aligned with the potential useful timeline of the CUU during the initial approval process. Charging the same fee for someone granted a CUU in 2028 (only 4 useable years from 2032 thru 2036) as someone granted the CUU in 2031 (7 useable years…2032 thru 2038) is not reasonable. Fees should be adjusted based on the useable time these initial CUUs will be available to each applicant, based on the month/year of approval and how far their approval extends past the 2032 implementation.

Do you have any alternative recommendations to stagger renewal deadlines?
MPCA cannot expect to understand the quantity and timeline CUUs will be submitted and/or approved. Furthermore, using an arbitrary 8-year timeline will generate overlap with an expected "novel product" surge in 2032 given the focus on applications submitted prior to the 2030 deadline (e.g. an initial CUU approved in 2029 will renew in 2037, which is also 5 years after a novel product that was approved in 2032). Instead, MPCA should create a defined approval program where applications approved in any given year are valid out past the initial renewal for novel products (2037). I believe this was the intent of the 8-year timeline, but this only works if applications start to be approved in 2030 (first renewal is 2038). If approvals start before 2030, the staggered method falls apart in 2037 when both the original and the initial surge of novel applications are up for renewal at the same time.

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?

Do you have any concerns about unintended consequences with this proposal?
a. The proposal includes many onerous requirements that have no defined methods for confirming completeness when submitting a certified application, for example:
• Identification of alternatives (including the list previously commented on above in question 6.) is unquantifiable and the proposal has no details on when such an assessment should be considered complete by a manufacturer.
• The need for indicating any PFAS on any regulatory chemical of concern list.
b. MPCA should set a cost threshold where excessive cost can render an alternative not "reasonably available". MPCA's reasoning that the current societal burden of AFFF, PFOA and PFOS and other short chain PFAS is directly related to the potential societal burden of all PFAS does not align with current science. Both Canada and New Mexico have recognized this and excluded fluropolymers and fluroelastomers in their regulations on PFAS.
c. Alternative assessments cannot rely on cost, but MPCA is mandating costing data to be provided in the alternative analysis. If costing is not a concern, MPCA's claim this is necessary for CUU approval appears to reach beyond the data necessary to determine if something is a viable alternative, especially when this is not included in the Trade Secret data available for protection from public release.

Do you have any alternative recommendations for data that should or should not be eligible for trade secret requests?
Most of the data in the required assessment of alternatives can be trade secret data (costs, manufacturing processes, concentrations, internal timelines for transitions to alternatives, etc.)

Grundfos also believes that it needs an additional entry where the commissioner can also determine if specific data warrants protection from release, as necessary.

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)*
Grundfos believes this question cannot provide any useful information for MPCA in their mission to create a viable CUU program. Each PFAS material, its specific use case, and the specific product/category can be evaluated for this data, but only when those specifics are known. MPCA has already created a method for the collection of this data in the public comment process/subsequent applicant rebuttal.

Additionally, the EU has generated case studies on impact assessment, specifically in the SEAC assessments. Grundfos recommends MPCA reference this data for details on potential societal impacts.

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.
Other (please specify)
Grundfos has been working on this since 2023 with over 20,800 hours attributed thus far. This includes gathering data on the presence of intentionally added PFAS, investigating possible alternatives, feasibility studies for alternatives, and engineering/operational time implementing suitable alternatives. We also estimate that the total remaining hours required just to gather the remaining data on the presence of intentionally added PFAS will exceed 15,000 additional hours. This does not include additional time required for viable alternative assessment and implementation.

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)
See Q14 answer

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).

Unknown at this time.

For manufacturers: Expenditure considerations when seeking non-PFAS alternatives (Part 2 of 2).

If you have not identified a technically viable non-PFAS alternative for one of your products that contains intentionally added PFAS, have you conducted a Research & Development (R&D) feasibility study?

- If so, what was the cost of that study?

See Q14 answer

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.

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)?
We estimate 24-30 months on average for each product to have a component replaced with an alternative to reach the market, assuming there are no issues encountered during implementation, testing and approvals.

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.
Generally, we believe a 5-year cycle is reasonable, but there will be situations that would exceed this timeframe.

Please provide any additional information or documentation needed to support your answers to any of the questions posed.
N/A

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)*
A. Grundfos believes that the current CUU process in Minnesota completely ignores complex manufacturing where PFAS is a part of complex products. This concern was mentioned previously but we believe it must be reiterated. MPCA's proposed program creates a regulatory environment where a single PFAS containing item will require thousands of applications from different manufacturers, even though the original manufacture of the item has a CUU that approves the use of that item for the same purpose.

Manufacturers downstream of an original PFAS product, creating more complex products that happen to have the same item embedded in them, should not need to request the item be approved for the same use again.

Put plainly, if MPCA determines an O-ring manufactured by Company A is entitled to a CUU for a specific essential purpose, all uses of that O-ring for that essential purpose should be allowed regardless of where in the supply chain they are used.

B. In the product category definition, MPCA mentions that novel products must provide all data required in the reporting rule when submitting a CUU. But this ignores the fact that reporting of this data could have already been accomplished during the annual reporting requirement. This should clarify that all data is necessary in a CUU application only when reporting under Minn R. part 7026.0030 has not yet occurred.

C. Under Additional Information required, MPCA should clarify that reporting of CUU determinations in other jurisdictions should be limited to an applicant's requests only, as this is all the applicant has control over.

D. Under Additional Information required, MPCA's requirement that an applicant for CUU provide any global restrictions on the contained PFAS in the product/category is onerous and for many manufacturers, especially US-focused small businesses, will not be achievable in a manner that is "certifiable" on a CUU application.

E. Under CUU determination process, the 30-day window for responding to a notification of an incomplete application is insufficient. Multiple requirements, should they be determined to be incomplete, are likely to exceed 30 days. We recommend MPCA provide at least 90 days to allow sufficient correction of deficiencies.

F. Given our previous comments on the CUU process and exponential growth of CUU applications as products are used across the market, Grundfos questions if MPCA will be able to meet the 2032 deadline for approving all CUUs.

G. Grundfos believes that maintaining records of CUU applications 5 years after a CUU expires (10 total years) is excessive and unnecessary.

H. Under Assessment of alternatives, MPCA should ensure the requirements for assessment are aligned with other jurisdictions, such as Maine, New Mexico, and the EU.
