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Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

Submitted electronically via MPCA comment portal

Re: Draft Rule Concept Summary for PFAS in Products: Currently Unavoidable Use (CUU) Rule

AAON Inc. is a technology leader engaged in engineering, manufacturing and selling commercial air conditioners, heat pumps, and several other commercial HVAC products. We excel in offering our customers highly efficient products that greatly exceed the requirements of the U.S. Department of Energy. Our revenue was \$1.20 billion in 2024. We have over 4,600 employees between all our operations exclusively in the United States. AAON headquarters is in Tulsa, OK. We have been in operation since 1988.

AAON respectfully urges the Minnesota Pollution Control Agency to consider the following feedback requested by MPCA in regards to the Currently Unavoidable Use rulemaking.

Question 1 of 20: Who is commenting? (choose the best fit)

Representative of a product manufacturer(s).

Question 2 of 20: If you are commenting as a representative, what is the name of the entity you are commenting on behalf of?

AAON, Inc.

Question 3 of 20: If you represent a product manufacturer or industry group, what industry(ies) do you represent?

AAON manufactures commercial and industrial heating, ventilation, and air conditioning (HVAC) equipment and related mechanical systems.

Question 4 of 20: 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?

AAON manufactures commercial and industrial HVAC equipment and related mechanical systems. Relevant product categories include packaged rooftop units (RTUs), air handling units (AHUs), split systems and associated condensing units, heat pump systems, and self-contained HVAC systems. These systems include integrated mechanical, electrical, and thermal management components used in heating, cooling, ventilation, and dehumidification applications for commercial and industrial facilities.

Question 5 of 20: 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 recognize that certain industrial and commercial equipment relies on materials or components that must perform under demanding operating conditions and safety requirements. For HVAC and related mechanical systems, components may operate under high pressures, wide temperature ranges, corrosive environments, electrical insulation requirements, and long equipment lifecycles. In such contexts, materials or components may be necessary for the equipment to perform its intended function.

The definition should clarify that equipment used in building services such as heating, cooling, ventilation, and humidity control may support functions relevant to health, safety, or the functioning of society depending on the application.

Question 6 of 20: 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)

If "product" as used in the proposed rule definition for "alternative" has the same meaning as "product" in Minn. Stat. §116.943, subd. 1(r), this creates ambiguity in the "assessment of alternatives" requirement. It is unclear whether manufacturers are expected to evaluate alternative products offered by competitors. Manufacturers generally do not possess sufficient technical or proprietary information about competitor products to conduct such an assessment. Clarification is needed regarding whether the assessment is intended to apply to alternatives available to the manufacturer, to a product category generally, or to a specific component.

If the term is intended to apply at the component level, manufacturers of complex durable goods may not be able to provide the required assessment with precision. Many components in complex equipment are sourced through multi-tier supply chains, and manufacturers may not have full technical information about Tier-2 or Tier-3 supplier materials or formulations.

The rule should also clarify how “functionally equivalent” is determined. Components that appear similar may not be interchangeable under actual operating conditions. End-use conditions, performance specifications, safety requirements, and system integration constraints may prevent substitution even where materials or parts appear comparable in isolation.

More generally, the rule should recognize the distinct characteristics of complex durable goods. Equipment such as commercial and industrial HVAC systems consists of numerous components designed to operate together under specific performance and safety requirements and is intended to remain in service for many years. Many components are internal and not accessible during normal operation. As a result, these products present different exposure and lifecycle considerations than consumer products designed for short-term use or disposal.

To address these issues, the rule could clarify that an “alternative” includes a non-PFAS chemical, substance, material, manufacturing process change, non-chemical change, component with equivalent ratings and use conditions, or product intended for a similar use, application, or installation that would allow the product or system to perform its intended function.

Question 7 of 20: 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)

Economic feasibility should be considered when determining whether an alternative is “reasonably available.” The cost of materials, redesign, or manufacturing process changes may make substitution economically impracticable, which could affect the continued availability of equipment or systems used in building services.

The rule should also clarify what constitutes “sufficient quantity.” It is unclear whether this standard refers to availability for a single applicant, a particular manufacturer, or for the broader market or industry. Without such clarification, there is a risk that limited supply from a single source could be interpreted as sufficient availability even if the alternative cannot be supplied at scale for the industry as a whole.

The definition should therefore clarify that “reasonably available” considers performance, supply, and practical implementability. One possible approach would be to define the term to mean that one or more alternatives to PFAS can perform comparably to the PFAS being considered for replacement in a product or component and are available in sufficient quantity to support the relevant market or industry use of the component or product without making the product or system economically impracticable to produce or deploy.

Question 8 of 20: 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.”)

Grouping should be based primarily on intended function, operating context, and relevant exposure pathway during intended use. Products that serve the same essential function and present similar potential for material contact during normal operation should generally be treated as the same product category. The rule should also account for the distinct characteristics of complex durable goods, where internal components may not be accessible to consumers during normal use and where lifecycle and exposure considerations differ from short-lived consumer products.

Question 9 of 20: 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 a request covering multiple product categories where the PFAS use serves the same function across those categories or where the relevant technical, performance, or operating conditions are materially similar. Requiring separate requests in those circumstances would create unnecessary administrative burden for both applicants and the agency.

Question 10 of 20: What safety or other standards require the use of PFAS in a product? (Please include the specific citation)

This question is highly product- and application-specific. In many cases, no single standard expressly requires the use of PFAS by name. Rather, products may be subject to multiple performance, safety, durability, electrical, thermal, pressure, or chemical resistance requirements, and the combined effect of those requirements may influence the selection of materials or components used to meet those requirements.

Compliance with applicable safety and performance standards also typically requires testing and qualification of materials and components. When materials or components are changed, those changes may require requalification testing to demonstrate continued compliance with applicable standards and system performance requirements. For equipment manufactured across multiple product lines, component substitution may require validation across multiple configurations, which can extend development and qualification timelines to multiple years.

Question 11 of 20: 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?

The proposed duration structure could create unintended consequences because the effective period of relief would depend on the timing of the agency's determination rather than the date the statutory prohibition takes effect. Manufacturers that apply early could effectively receive a shorter exemption period if a CUU determination is issued several years before the prohibition takes effect. Applicants should not lose years of a positive currently unavoidable use determination based on agency processing timing that is outside the applicant's control.

One possible alternative would be to begin the initial CUU duration for existing products on January 1, 2032, when the statutory prohibition takes effect. Alternatively, the rule could guarantee a minimum period of CUU validity following that date or otherwise ensure that the CUU duration does not run during periods when an application is pending agency review. These approaches would preserve the agency's objective of staggering renewals while avoiding disincentives for early applications.

Question 12 of 20: The MPCA has developed a preliminary list of potentially eligible data categories that may be considered for trade secret requests. (Please review the list of potentially eligible data prior to answering)

Do you have any concerns about unintended consequences with this proposal?

Manufacturers need greater certainty regarding what types of information may qualify for trade secret protection. If the rule leaves too much uncertainty as to whether sensitive technical, formulation, design, or supply chain information will be protected, manufacturers may face uncertainty when determining what information can be submitted while protecting confidential business information. This uncertainty could affect decisions about whether to continue offering certain products in Minnesota. That could create an avoidable barrier to products and equipment that may serve important commercial, industrial, or infrastructure functions.

Do you have any alternative recommendations for data that should or should not be eligible for trade secret requests?

The rule should retain flexibility to protect additional categories of sensitive information beyond those specifically listed. One approach would be to add an "other" category for information that is not expressly identified in the rule but that the applicant can demonstrate is proprietary, commercially sensitive, or otherwise entitled to trade secret treatment under applicable law. This would help account for product-specific or technology-specific information that may not fit neatly within predefined categories.

Question 13 of 20: 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)

Potential ongoing costs to society may vary depending on the product, the specific PFAS at issue, including its relevant hazard characteristics, the conditions of use, the degree of consumer or worker contact, and how the product is handled at end of life. Relevant considerations include whether the PFAS-containing component is internal or externally accessible during normal use, whether the product is durable or disposable, whether it is subject to controlled handling or disposal requirements, and the likelihood of release during use, servicing, or disposal.

For these reasons, among others, the agency would have no factual basis for assuming that all products or product categories present the same environmental, human health, or remediation profile. Nor would it have a factual basis for assuming that all PFAS present the same long term risk profile irrespective of the specific substance and the conditions of use. To the contrary, a product that is regularly handled by consumers may present different considerations than equipment containing internal components that are not ordinarily accessible during normal operation. Likewise, durable equipment intended to remain in service for many years may present different lifecycle considerations than products that are quickly discarded.

The agency should also consider the societal costs that may result if a currently unavoidable use determination is delayed or not granted for products that perform important functions. If the rule is intended to preserve access to uses deemed essential for health, safety, or the functioning of society, the consequences of delayed determinations, interrupted sales, or the absence of a clear process for continued access should also be considered as part of the broader societal cost analysis.

Questions 14-19:

AAON respectfully declines to provide detailed company-specific information in response to this question at this stage of the rulemaking.

Question 20 of 20: 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)

In addition to the responses to the questions posed by the Minnesota Pollution Control Agency (MPCA), AAON offers the following general observations regarding the proposed rule framework.

Minn. Stat. § 116.943 authorizes the commissioner to determine by rule that specific products or product categories qualify as “currently unavoidable use.” The statute does not prescribe a particular application process for manufacturers. The proposed rule concept appears to rely primarily on product-specific applications requiring detailed assessments of alternatives and supply chains. For manufacturers of complex durable goods, this approach may present practical challenges. Such products often incorporate numerous components sourced through multi-tier supply chains, and manufacturers may not have complete technical information regarding the materials or formulations used in upstream components.

The rule should therefore consider whether certain determinations could appropriately be made at the product-category level where the relevant use of PFAS serves a similar function across comparable products. Allowing category-level determinations in appropriate circumstances could reduce administrative burden for both applicants and the agency while still allowing the MPCA to evaluate whether the statutory criteria for currently unavoidable use are satisfied.

The proposed framework also establishes specific deadlines for submission of CUU requests but does not specify timelines for agency review and final determination. The rule concept indicates that a product may not be sold in Minnesota after the statutory prohibition takes effect if a positive CUU determination has not yet been issued. In the absence of predictable timelines for agency determinations, manufacturers may face uncertainty regarding whether applications submitted in advance of the prohibition date will be resolved before the prohibition becomes effective. The rule should consider mechanisms to ensure that applications are reviewed and resolved in a timely manner so that access to products performing important functions is not inadvertently interrupted.

We appreciate the opportunity to provide feedback to these questions. We encourage MPCA to consider these comments and pursue rulemaking that reduces the risks associated with PFAS while ensuring products that are essential to everyday life are still available. We welcome the opportunity for continued dialogue in this process.

Sincerely,

A handwritten signature in cursive script, appearing to read "Clint Reese".

Clint Reese
Regulatory Engineer