Scott Schloegel

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?
Motorcycle Industry Council (MIC), Specialty Vehicle Institute of America (SVIA), and Recreational Off-Highway Vehicle Association (ROHVA)

If you represent a product manufacturer or industry group, what industry(ies) do you represent?
Powersports vehicles (motorcycles, all-terrain vehicles (ATVs), off-highway vehicles (OHVs), and recreational off-highway vehicles (ROVs - which are commonly referred to as side-by-sides))

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?
Manufacturers making and assembling motorcycles, ATVs, ROVs, replacement and aftermarket parts, accessories and gear. Fluoropolymers are essential in motorized vehicles for the following: 1) fuel and electric systems; 2) powertrains; 3) brakes; 4) semiconductors and cables; and 5) components that are exposed to high heat and complex chemical blends in fuels and other fluids including gaskets, o-rings, and tubing, among others.

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 of “essential for health, safety, or the functioning of society” should explicitly include safety when evaluating PFAS CUU determinations. PFAS are used in motor vehicle applications to meet established state and federal safety and environmental standards, and replacement alternatives may not provide equivalent levels of protection. Accordingly, the safety of vehicle operators, passengers, and the public should be a key consideration in determining whether a use is currently unavoidable, as should compliance with state and federal environmental clean air and safety standards.

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)*

A reasonably available alternative may not exist in all cases because a substitute suitable for one application may not be viable for another. Although some alternatives have been identified in Europe, many still present their own health or performance concerns. For example, wax and silicone may provide water repellency in textiles but do not offer comparable chemical resistance. As a result, manufacturers would need to address unmet performance requirements with other, potentially untested solutions, introducing uncertainty and risk. Given the wide range of products, uses, and performance standards involved, it is unclear how the state could independently determine appropriate alternatives. PFAS are used in powersports vehicles because they meet critical performance requirements to address durability, water and chemical resistance, flexibility, complex chemical blends, temperature resistance, flammability standards, etc.

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*)
Cost considerations should be included in the definition of “reasonably available,” particularly given the technical complexity of durable goods such as motor vehicles, motorcycles, off-highway vehicles, and side-by-sides. In these applications, PFAS are used for performance, safety, and cost-effectiveness. Substituting alternatives would increase manufacturing costs, which are likely to be passed on to consumers. In the current economic climate, and amid existing tariff pressures on the powersports industry, additional cost increases would place a further burden on Minnesota consumers.

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.")*
CUU determinations should align with the same product groupings used for reporting. Requests for CUU exemptions should be made at the product or product-category level, consistent with MPCA’s approach (e.g., “vehicle” as a category).

At the same time, CUU determinations should account for the complexity of motor vehicles and powersports vehicles, which consist of numerous individual components and parts with distinct technical requirements. Evaluating CUU at the product level allows for a more practical and accurate assessment of whether PFAS use remains necessary across integrated systems, where alternatives may not be feasible for specific components critical to safety, performance, or regulatory compliance. For example, if powersports vehicles were not allowed to be sold in Minnesota due to individual parts/components not receiving CUU designation, the result would be loss of critical transportation, recreation, police, fire, and first responder vehicles across the state. Therefore, CUU designation must attach to the entire complex product when component parts require PFAS.

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 for CUU determinations should be permitted to submit requests covering multiple product categories. Complex durable goods, such as motor vehicles and powersports vehicles, are composed of thousands of individual components and parts that often span multiple categories but function as integrated systems. Limiting CUU requests to a single product category would create unnecessary administrative burden and fail to reflect the technical interdependencies among components. Allowing multi-category submissions enables a more efficient, consistent, and accurate evaluation of PFAS uses across related applications within a single product system.

What safety or other standards require the use of PFAS in a product? *(Please include the specific citation)*
Removing PFAS from an internal component of a motor vehicle — including motorcycles, off-highway vehicles, and side-by-sides — may result in noncompliance with applicable state and federal flammability standards, including 49 CFR § 571.302 (Flammability of Interior Materials).

PFAS are used in motor vehicles to ensure compliance with flammability requirements by enhancing fire resistance, thermal stability, and material performance under high-temperature conditions. Key applications include: 1) wire and cable insulation, where fluoropolymer coatings help resist ignition, limit flame propagation, and maintain integrity in dense electrical systems; 2) fuel system components, such as lines, seals, and gaskets, where PFAS materials provide chemical resistance and reduce the risk of flammable leaks; and 3) engine components, where PFAS-containing plastics are used in high-heat environments due to their resistance to degradation and ignition. Removal of PFAS from any of these critical applications may compromise system performance and create a risk of noncompliance with applicable federal flammability standards.

PFAS are used in motor vehicles to support compliance with Section 202 Clean Air Act requirements by controlling evaporative and tailpipe emissions and maintaining system durability over time. Key functions include: 1) fluoropolymers are used in fuel lines, tanks, seals, and gaskets to significantly reduce fuel permeation, which limits the release of volatile organic compounds (VOCs) that are regulated under evaporative emissions standards; 2) durable sealing in fuel and exhaust systems to prevent leaks that could increase emissions; and 3) PFAS in wiring insulation help ensure reliable operation of emissions-control technologies, which is necessary for compliance.

Overall, PFAS contribute to Federal Clean Air Act compliance by minimizing evaporative emissions, preventing system leaks, and ensuring long-term durability of emissions-control components. Absent a CUU determination, manufacturers may be forced to choose between noncompliance due to technical limitations or ceasing sales in Minnesota.

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?

CUU designations should have a minimum duration of eight years for both initial and renewal determinations, reflecting the practical and technical considerations. There can be significant differences between typical product development cycles and the time required to identify and validate alternative materials. In many cases, this process may exceed eight years. Moreover, suitable alternatives may not exist, or it may not be technically or economically feasible to eliminate the need for the performance characteristics provided by PFAS. If eight years is treated as a strict limit, some products may be forced from the market. Chemicals and materials are selected to achieve specific functional benefits, and their use is generally driven by those performance requirements. While MPCA emphasizes its own administrative constraints, it has not given comparable consideration to the cost and regulatory burden imposed on industry.

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?

Our member companies are concerned about unintended consequences if key trade secrets, such as chemical identities, CAS numbers, concentration data, supply chain relationships, and reformulation processes, are not adequately protected under Minnesota's CUU process for PFAS in products. Disclosure of CAS-level formulation data could reveal proprietary material compositions that are critical to product performance and differentiation. Similarly, releasing supply chain information may expose confidential vendor relationships, undermining negotiated advantages and enabling competitors to replicate sourcing strategies. Public access to reformulation methods could further disclose valuable intellectual property, particularly in cases where manufacturers have made substantial investments in advanced polymer and elastomer innovation.

Protecting trade secrets is critical to allowing companies to stay competitive, recover their research and development costs, and avoid losing market share to copied products. If sensitive information is disclosed, competitors could adopt these innovations without making similar investments, reducing the incentive for companies to develop new and improved products. These impacts can ultimately extend to consumers. Reduced innovation and increased competitive pressure may lead to fewer high-performance product options, diminished product quality, and potential price increases as manufacturers attempt to offset lost competitive advantages.

Ensuring robust trade secret protections is therefore

critical not only for manufacturers, but also for maintaining a competitive market that benefits consumers in Minnesota through continued innovation, quality, and choice.

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)*
While these considerations are important, they must be evaluated alongside the critical role PFAS play in enabling compliance with safety and environmental regulations. They must also be considered based on relative risk to the environment and public health, given that all PFAS do not carry the same risks. In many vehicle applications, PFAS are integral to meeting flammability standards, emissions requirements, and performance and safety standards by ensuring material durability, reducing fuel permeation, and preventing system failures. Premature substitution with less effective alternatives could lead to unintended consequences, such as increased emissions, reduced component lifespan, or elevated safety risks, which may also impose societal costs. Moreover, potential alternatives may present unknown risks and could be equally or more harmful to human health and the environment.

Additionally, MPCA's approach of lumping all PFAS together as a class of materials having one shared health and environmental outcome potentially unnecessarily forces manufacturers to transition away from materials which do not share the concerning characteristics of a few PFAS.

Accordingly, a CUU determination can help avoid greater near-term risks and costs by allowing continued use where no technological and economically feasible alternatives currently exist, or no there is no actual risk in using the material in a particular application, while industry continues to evaluate and transition to safer substitutes where needed.

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.
More than 500 hours

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 <u>does not</u> 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.
More than 500 hours

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).

As previously noted in these comments, for most motor vehicle applications — including fuel systems, powertrain components, braking systems, seals, o-rings, and wiring insulation —fluoropolymers lack drop-in substitutes that meet established performance, safety, and durability requirements. Where limited alternatives exist, their cost profile is primarily driven by:
Capital Expenditure (CapEx): 70-90%. This includes new molds, tool redesign, qualification of new polymers, and production line changes.
Operational Expenditure (OpEx): 10-30%. Higher cost raw materials, changes in logistics, and additional testing cycles.

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?

Expenditure considerations are significant. For applications where member companies have evaluated non-PFAS alternatives, feasibility studies typically range from approximately $174,000 to $580,000 per application. These assessments include materials screening, prototype tooling, performance testing, and supply chain evaluation. In many cases, despite substantial investment, studies have concluded that no viable alternative currently meets applicable regulatory, safety, and durability requirements for powersports vehicles, underscoring the considerable burden on 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.

Powersports vehicles operate on a model-year, rather than calendar-year, basis and must be certified before the applicable model year concludes. For example, model year 2027 vehicles are currently undergoing certification. The timelines proposed by MPCA are based on the calendar year and do not account for these model-year constraints.

The typical research, development, and safety validation cycle for a reformulated component in the powersports industry spans approximately 5 to 8 years from concept to testing, to certification, and eventually market entry. This process includes extensive environmental, thermal, chemical, and durability testing; regulatory approval from the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA); on-vehicle validation across diverse conditions and climates; safety certification (e.g., fuel system integrity and braking performance); and supplier tooling and qualification. If an alternative fails at any stage, development must restart. Minnesota's timelines have not been adequately considered in the ban or in the CUU determination process.

Please provide any additional information or documentation needed to support your answers to any of the questions posed.
MPCA must consider the practical constraints faced by manufacturers of complex durable goods in relation to the CUU determination process. As currently structured, a single powersports vehicle model could generate hundreds of CUU determination requests. When multiplied across multiple models and manufacturers, this would result in thousands of submissions from the powersports industry alone. Such volume is unworkable and would likely overwhelm the agency, leading to delays in CUU determinations and potential disruption of vehicle sales in Minnesota.

Powersports vehicles, like other motor vehicles, are composed of thousands of components sourced through global supply chains. Manufacturers rely on suppliers for chemical composition data, which may be limited due to trade secret protections or other constraints beyond the manufacturer's control. As a result, obtaining complete chemical information for every component is often infeasible without extensive and costly testing. Additionally, distinguishing intentionally added PFAS from unintentionally added PFAS will be impossible when suppliers do not provide composition

data.

Fluoropolymers play a critical role in vehicle systems, including fuel and electrical systems, powertrains, braking systems, semi-conductors, and wiring. These materials support safety and regulatory compliance by reducing fire risk, limiting emissions, enhancing durability, and lowering maintenance needs. They also contribute to improved fuel efficiency, reduced emissions, and the performance of alternative fuels and battery technologies. Fluoropolymers do not pose a risk to human health or the environment as they are not bioavailable, not water soluble, not mobile, and do not bioaccumulate.

Our member companies continue searching for suitable replacements for PFAS in their vehicle parts and products, but currently PFAS is an unavoidable use to ensure safety, proper functioning of our vehicles, and compliance with state and federal flammability and clean air regulations.