Martha Marrapese

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?
The Complex Products Manufacturers Coalition (CPMC)

If you represent a product manufacturer or industry group, what industry(ies) do you represent?
Complex Durable Goods

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?
Complex Durable Goods

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)*
Not at this time - however, please allow this information to be claimed trade secret.

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)*
Yes - see attached comments.

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*)
Yes - economic feasibility. See attached comments.

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.")*
Allow flexibilty given the breadth of affected products.

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?
These determinations require alternatives assessments, so they should be grouped to make the AA process workable.

What safety or other standards require the use of PFAS in a product? *(Please include the specific citation)*
See attached comments.

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?

Yes - see attached comments.

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?

Yes - how a product may meet extreme performance characteristics may be proprietary.

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)*
Complex durable goods predominantly rely on the use of fluoropolymers, elastomers, and refrigerants in internal components. They are not the types of chemistry that partition to water or bioaccumulate and therefore present low or no potential for remediation.

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.
Not applicable

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.

See attached comments.

The Honorable Katrina Kessler
Commissioner
Minnesota Pollution Control Agency
520 Lafayette Road North
St Paul, MN 55155

Re: CPMC Comments Part 1; Alternatives Assessment Considerations for Complex Durable Goods

Dear Commissioner Kessler:

The Complex Products Manufacturers Coalition (CPMC or Coalition) appreciates the opportunity to submit comments on alternatives assessment (AA) in response to draft concepts the Minnesota Pollution Control Agency (MPCA) has put forward for new rules governing how the MPCA determines currently unavoidable uses (CUUs) of per- and polyfluoroalkyl substances (PFAS) in products as directed by Minn. Stat. § 116.943.[1]

CPMC has identified the proposed alternative assessment ("AA") process of MPCA's CUU framework as the most significant element of the rulemaking for manufacturers, particularly those of complex durable goods. The statute specifies that "a person may not sell, offer for sale, or distribute for sale in this state any product that contains intentionally added PFAS, unless the commissioner has determined by rule that the use of PFAS in the product is a currently unavoidable use."[2] The term currently unavoidable use is defined in the statute as one for which "alternatives are not reasonably available."[3] The term product is defined in the statute as "an item manufactured,

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[1] CPMC brings together individual businesses and trade associations with multi-component consumer and non-consumer products and complex, international supply chains. With 23 members that include trade associations and individual companies, CPMC represents a wide cross-section of products that are essential for health, safety and the functioning of society. These products—including home appliances, on and off-road vehicles, the regulated engines that go into these on- and off-road vehicles and equipment, recreational and commercial vessels, engines and components, outdoor power tools and equipment, lighting, heating, ventilation, cooling, refrigeration, and water heating equipment (HVACR-WH), electronics, and their replacement parts—support vital sectors of the economy, including government, law enforcement, first responders, food and agriculture (including commercial fishing and sea farming), energy, transportation and logistics, public works and infrastructure support, critical manufacturing, the defense industrial base, conservation, and life-saving backup power, climate control and ventilation in homes, hospitals, schools and universities, eldercare facilities, food preservation and processing, and laboratory and life sciences facilities. The use of ingredients that fall in Minnesota's definition is to ensure their safety and durability, particularly in high-performance environments (e.g., engine components) where failure would be not only costly but also potentially catastrophic. Due to extreme performance requirements, functionally equivalent alternatives may not be available in all cases.

[2] Minn. Stat. § 116.943, subd. 5(d) (2023).

[3] Minn. Stat. § 116.943, subd. 1(j) (2023).

assembled, packaged, or otherwise prepared for sale to consumers, including but not limited to its product components, sold or distributed for personal, residential, commercial, or industrial use, including for use in making other products."[4] Thus, the term "product" includes identifiable "product components" which may not be manufactured by the "product" manufacturer.

By definition, a complex durable good consists of one hundred or more components. Under MPCA's proposed CUU concept, each identifiable component in a complex durable good that contains a fluorinated chemical requires its own AA, magnifying the scope of CUU submissions in a way that is likely to overwhelm both applicants and the MPCA. As proposed, the AA process places substantial burdens on complex durable goods manufacturers to compile the required information for product components they do not necessarily make but instead assemble into finished products.

Comparable AA programs conducted under California's Safer Consumer Products Program (SCPR) and Washington's Safer Products Program (SPP) demonstrate that even a single alternatives analysis for a discrete product-chemical combination—such as N(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine (6PPD) in motor vehicle tires[5]—may require an alternatives analysis that is hundreds of pages long, reflecting the depth of information required to evaluate the technical and economic feasible of an alternative. The data and documentation required to support dozens or even hundreds of component-level AAs would be staggering. Both the California SCPR and Washington SPP were developed to reduce the use of chemicals of concern in consumer products and advance the design, development, and use of products that are chemically safer for people and environment. These programs are relevant to MPCA because they address the same core question as Minnesota's proposed CUU framework: whether the chemical use in a product or component is "currently unavoidable," or whether a "reasonably available" alternative exists.[6] Furthermore, the SCPR and SPP recognize that an assessment of alternatives may not always result in the identification of a safer alternative and limit restrictions on chemicals of concern in products where technically and economically feasible alternatives do not exist or where restricting the chemical would conflict with other federal and state laws.

Ultimately, these programs work because they recognize that the evaluation of alternatives in complex durable goods requires special attention. Washington's SPP specifically exempts from the AA process:

- Plastic shipping pallets manufactured prior to 2012;
- Food or beverages;
- Tobacco products;

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4 Minn. Stat. § 116.943, subd. 1(r) (2023).

5 Preliminary (Stage 1) Alternatives Analysis Report Motor Vehicle Tires Containing N-(1,3-dimethylbutyl)-N′-phenyl-p-phenylenediamine (6PPD), Prepared for U.S. Tire Manufacturers Association, March 15, 2024.

6 Draft Rule Concept at pp. 2, 4-5.

- Drug or biological products regulated by the United States food and drug administration;
- Finished products certified or regulated by the federal aviation administration or the department of defense, or both, when used in a manner that was certified or regulated by such agencies, including parts, materials, and processes when used to manufacture or maintain such regulated or certified finished products;
- Motorized vehicles, including on and off-highway vehicles, such as all-terrain vehicles, motorcycles, side-by-side vehicles, farm equipment, and personal assistive mobility devices; and
- Chemical products used to produce an agricultural commodity, as defined in RCW 17.21.020.
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While these products are exempt, DOE can identify the packaging of these products as Priority Products to undergo an AA under the law. The SPP also prohibit DOE from banning or restricting the use of chemicals of concern in inaccessible components of electronic products.[7]

Additionally, the SCPR acknowledges the challenges in conducting an AA for complex durable goods and provides relief by limiting the number of specific components in these products that can undergo an AA within a three-year period to no more than ten individual components. CPMC recommends that MPCA draw from these established regulatory frameworks to provide a workable CUU application process for complex durable products in Minnesota. The SCPR and SPP programs offer insights for the systematic exclusion, selection and review of a reasonable number of individual product components in CUU requests for complex durable goods. The key aspects of these programs that we encourage MPCA to consider including in a revised CUU process are outlined below.

I. Existing AA state frameworks.

The California SCPR and Washington's SPP share certain fundamental program elements but function slightly differently. Both programs aim to:

1. Recognize that the evaluation of alternatives is challenging for complex durable products. California limits the number of components that can undergo an AA at a given time to no more than ten components and recognizing assemblers as a separate class. Washington's law exempts several products regulated under other federal laws including motorized vehicles from the law all together and does not authorize chemical bans or restrictions on chemicals in internal electrical components;
2. Consider economic feasibility when evaluating alternatives;

[7] RCW 70A.350.

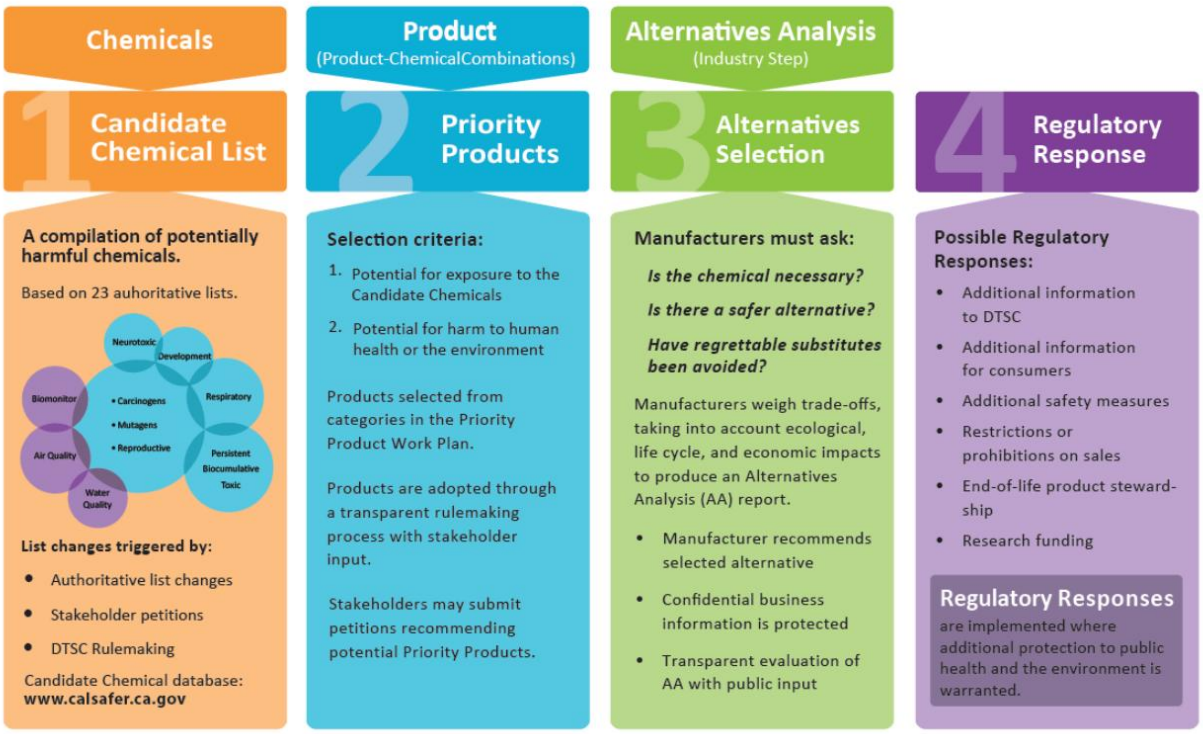
3. Allow flexibility to select either a finished product or a component for AA evaluation;
4. Seek to avoid regrettable substitutions; and
5. Enable a collaborative approach to allow consortia to form.

While these programs share several key goals, they operate differently.

II. California SCPR.

Under the SCPR, responsible parties must complete an AA to identify whether "safer alternatives" exist that are technically feasible and economically viable as compared to the chemical of concern in the Priority Product. Priority Products are defined as consumer products that (1) contains one or more Chemicals of Concern that have the potential to harm people or the environment, and (2) has been formally listed in the California Code of Regulations through rulemaking. The SCPR require DTSC to describe a Priority Product sufficiently so it is clearly identifiable. If the Priority Product is a component of one or more assembled products, DTSC must describe the assembled product(s) in which the component is used. Here is an overview of the process:

California SCPR Process[8]



[8] See 22 C.C.R. § 69501 et seq. and https://dtsc.ca.gov/wp-content/uploads/sites/31/2016/01/AA-Guide-Version-1-0_June-2017.pdf

Manufacturers and importers bear the primary AA obligation; retailers and assemblers are a backstop only if the manufacturer or importer does not comply. The SCPR define "assemblers" as "any person who assembles a product containing a component that is a product subject to the requirements" of the SCPR.[9] Because assemblers typically incorporate a product as a component (rather than manufacture it), the California Department of Toxic Substances Control (DTSC) recognizes they may lack the information needed to complete an AA and allows them to defer to manufacturers and importers. If the manufacturer or importer does not comply an assembler may avoid the AA by ceasing to order the product and timely notifying DTSC.[10]

The regulations provide relief for complex durable goods by limiting to ten the number of components within a single complex durable product that may be listed as a Priority Product and subject to an AA during any three-year period.[11] This limitation was included in the SCPR to support complex durable goods manufacturers in managing the products design complexity, which increases as more components must be evaluated at the same time for redesign. It also provides manufacturers who have long product-development timeframes with certainty about the maximum number of AAs they must address for components in a set period, which helps them focus resources on a manageable set of components during each design and AA cycle.[12] The regulations provide the flexibility for a manufacturer or group of manufacturers of a Priority Product to complete the AA. If the AA identifies a "safer alternative," the DTSC can implement regulations that ban the use of the chemical of concern in the product and require the use of the safer alternative. If no alternative is found, the law provides regulators with a number of regulatory responses including no regulatory response, funding a green chemistry grant, or labeling.

Furthermore, the SCPR requires consideration of technical and economic feasibility. DTSC can require a manufacturer to stop selling the product with the chemical of concern in the product where an alternative is not selected, but the rules also allow DTSC to permit the product to stay in the market if a manufacturer can demonstrate that the product's benefits outweigh any adverse impacts, and administrative or engineering controls are available to adequately protect health and the environment.[13] The SCPR program also authorizes exemptions from a chemical restriction where no technically and economically feasible alternative exists when a ban or restriction conflicts with one or more state or federal laws or applicable treaties or international agreements.[14]

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9 22 C.C.R. §69501.1(a)(16).

10 22 C.C.R. §69501.1

11 Final Statement of Reasons, Safer Consumer Products, Department Reference Number: R-2011-02 Office of Administrative Law Notice File Number: Z-2012-0717-04, Page 193.

12 Id.

13 22 C.C.R. §69506.5.

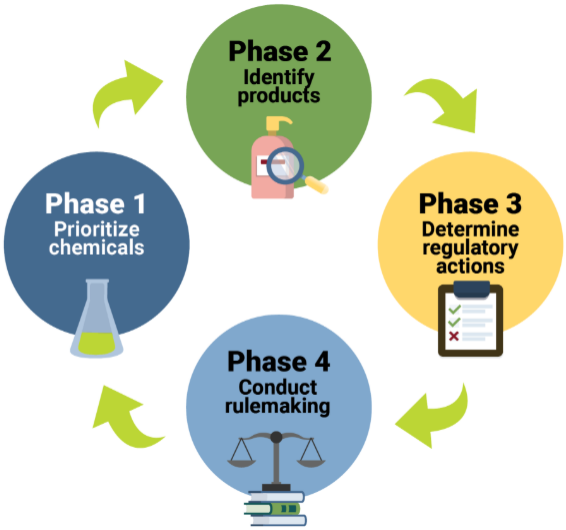
14 22 C.C.R. §69506.9.

III. Washington SPP.

Under the SPP, the Washington Department of Ecology (DOE) to conduct the AA rather than manufacturers. DOE initiates the SPP by nominating chemical/product combinations for which it will conduct an alternatives analysis during a five-year cycle. After approval of the chemical/product combinations by the legislature, the chemical product combinations become Priority Products, and the DOE begins evaluation of alternatives. If alternatives are found to be both "feasible" and "available," DOE can propose a chemical ban or restriction on the chemical of concern in the product.

Washington's SPP specifically exempts a number of products including: "motorized vehicles, including on and off-highway vehicles, such as all-terrain vehicles, motorcycles, side-by-side vehicles, farm equipment, and per-sonal assistive mobility devices," from the AA process and prohibits DOE from banning or restricting the use of chemicals of concern in inaccessible components of electronic products. The graphic below provides a summary of the SPP AA process.[15]

Washington SPP Process[16]



IV. Flexibility in selecting a finished product or a specific component for AA evaluation.

Minnesota's law defines a "product" as an item manufactured, assembled, packaged, or otherwise prepared for sale to consumers, including but not limited to its product components, sold or distributed for personal, residential, commercial, or industrial use, including for use in making other products. Due to the use of the commas in this sentence, it is not entirely clear if there are

15 https://ecology.wa.gov/waste-toxics/reducing-toxic-chemicals/washingtons-toxics-in-products-laws/safer-products#cycle

16 https://dtsc.ca.gov/wp-content/uploads/sites/31/2016/01/AA-Guide-Version-1-0_June-2017.pdf

two separate examples of a product in this definition (the finished product and individual components) or just one (the finished product). In addition, a definition for the term "consumer" is not found in the statute; comments were submitted during the reporting rulemaking to suggest that the legislature had only individuals and households in mind. Unfortunately, the legislative history on the law is scant and does not speak directly to that issue.

In response to this ambiguity, we urge MPCA to be flexible in allowing companies to group CUU requests. Based on the definition of complex durable goods as being made up of 100 or more components, CPMC supports allowing CUU requests for a product class and not require separate requests for individual components. CPMC supports MPCA's example of a product class of "vehicles" rather than sedans, SUV's, vans, trucks, RV's and "printers" rather than receipt printers, thermal printers, label printers, residential printers, commercial printers, etc. It would be extremely challenging (if not impossible) within the anticipated timeframe allowed for complex durable products manufacturers to generate multiple CUU applications for each individual containing component in a finished good.

For complex durable goods, the use of the component in connection with the finished good often provides the necessary context for evaluating the availability of alternatives. Potentially affected components in the critical electricity infrastructure sector include but are not limited to insulating coatings and lubricants, seals and gaskets that prevent leakage of oils and gases, insulating gases, nozzles, slide rings, deflectors, wire harnesses (insulation), current transformer winding, and spacers. In these cases, it makes sense to consider the necessity of the component part within the context of a CUU request for the finished product.

Companies may want to describe the product class in terms of the relationship to emission regulations (and associated safety standards for installation considerations) which drive materials choice and selection to maintain the required performance and durability characteristics as are required by federal standards. An example of this type of a "product class" is regulated "engines", without regard to the specific product in which the engine is installed such as: "engines, systems, components, or separate technical units regulated under Title 40 of the Code of Federal Regulations, Title 13 of the California Code of Regulations, or is Minnesota site-tested for emissions." This approach reduces the redundancy that would result by linking an engine to each end use application: in this example the regulated engine is the same regardless of whether it is used in agriculture or commercial hauling. The approach of using product groupings that identify the finished goods rather than the use application is similar to how the European Chemicals Agency (ECHA) is structuring derogations in the REACH Annex XVII proposal.

Nevertheless, this law affects such a wide range of products that MPCA should also accept submissions on components as well where it makes sense. AA's in California and Washington demonstrate that the states have taken a flexible approach to designate as a Priority Product, either a product or a component of a product. For example, DTSC listed Carpets and Rugs containing

PFASs as a Priority Product. Carpets and Rugs may contain backing and other components, however in this case, DTSC chose to list the product rather than a specific component as a Priority Product. In other cases, specific components have been listed as a Priority Product, for example the SPP listing of organo-halogen flame retardants (HFRs) in plastic device casings of electric and electronic equipment. Because the statute requires a manufacturer to report information on the purpose of the ingredient in the product, including any product components, a key factor in evaluating alternatives, it appears to give some flexibility to manufacturers to conduct an AA at either the product or component level, whichever is most appropriate as determined by the manufacturer.[17]

CPMC urges MPCA to be flexible in how companies may group CUU requests and cautions against a "one size fits all" approach.

V. SCPR and SPP require an assessment of economic feasibility.

SCPR and SPP consider the economic feasibility of the alternative before banning or restricting a chemical. Unlike MPCA's proposed definition of "reasonably available," the SCPR and SPP programs consider the cost of an alternative when identifying whether an alternative is "reasonably available." In the Final Statement of Reasons for the SCPR, DTSC states:

> "The term "economically feasible" is used in Articles 3, 5, and 6. This criterion includes the economic viability of the alternative that would allow the product to be profitable for the manufacturer. The responsible entity must consider the effect on the operating margin of the manufacturer. This factor reflects marketplace realities and business realities in determining whether there is an economically viable alternative to a Priority Product. Thus, this term is necessary to make clear that one of the considerations during the AA is whether the use of an alternative will significantly reduce the operating margin of a manufacturer. The purpose of this program is not to put companies out of business, but to ensure a fair and reasonable search for safer alternatives that may actually be used."[18]

Washington's Toxic Pollution Law does not define "feasible" or "available," but DOE does provide a useful benchmark in practice for an alternative to be capable of replacing a chemical of concern. Under DOE's framework, an alternative is "feasible" if it meets the same functional and performance requirements as the chemical it is replacing and is (1) already used for the application, (2) marketed for the application, or (3) identified as feasible by an authoritative body.[19] "Available" means the alternative is currently used for the application or offered for sale at a comparable

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17 Minn. Stat. § 116.943, subd. 2(2) (2023).

18 Final Statement of Reasons, Safer Consumer Products, Department Reference Number: R-2011-02 Office of Administrative Law Notice File Number: Z-2012-0717-04, Page 67.

19 Id. at page 301.

price—recognizing that a substitute that exists but is not obtainable at a similar price point is not "available."[20] Under the SPP "technically feasible" means that the "technical knowledge, equipment, materials, and other resources available in the marketplace are expected to be sufficient to develop and implement an alternative product or replacement chemical."[21] An "economically feasible" alternative product or replacement chemical is one that does not significantly reduce the manufacturer's operating margin.[22]

Therefore, CPMC disagrees with the proposal to define the term "reasonably available" as devoid of cost considerations for an alternative that "can perform comparably". The proposed definition of "alternative" specifies that the alternative must result in a "functionally equivalent" (i.e., the same rather than a lesser performing "comparable") product. These definitions do not align: a "comparable" alternative is not "equivalent". The proposed definition of "reasonably available" only speaks to sufficient quantities and use. More frequently, the definition of "reasonably available" in environment laws must address three areas: (1) technically feasible, (2) economically reasonable, and (3) capable of implementation within an allotted timeframe.[23]

An AA framework that disregards economic feasibility will result in identifying "alternatives" that may exist on paper but are not cost-effective or realistic in practice. This could result in discontinued products, reduced availability of essential goods, and price increases for consumers. Including economic feasibility in AA determinations ensures the evaluation of safer substitutes in a manner that preserves the flow of commerce and the continued availability of critical products and services.

CPMC recommends that MPCA revise the definition of "reasonably available" to incorporate an explicit economic feasibility criterion into the CUU process. "Reasonably available" alternatives should perform the same, be available at a cost that does not put companies out of business, and at sufficient quantities to preserve the flow of commerce.

VI. Avoid regrettable substitutions and allow CUU timelines which avoid this pitfall.

The SCPR and SPP processes are designed to avoid unintended consequences through a rigorous, evidence-based evaluation of alternatives before approving any substitution. Under the SCPR, two years is allotted for alternatives assessment, with extensions. As DTSC recognizes, "when hazardous chemicals are banned or voluntarily removed from the market, they may be replaced with chemicals that are similar but less well studied. Sometimes these replacement

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20 Id.

21 22 C.C.R. §69501.1(a)(65).

22 22 C.C.R. §69501.1(a)(29).

23 Clean Air Act §§ 172(c)(1), 182(b)(2), EPA RACT guidance and state SIP regulations (consideration of whether a company capable of meeting the limit);; 40 C.F.R. § 702.3 (consideration of deadlines); 40 C.F.R. § 51.1312(c)(consideration of technical and economic feasibility and capable of meeting within a prescribed timeframe); 40 C.F.R. § 1502.14, CEQ and agency NEPA guidance (consideration of technical and economic feasibility); *Michigan v. EPA*, 576 U.S. 743 (2015) (some consideration of costs required).

chemicals turn out to be similarly harmful to human health or the environment, a situation known as regrettable substitution."[24] Including consideration of regrettable substitutions in the CUU application process is essential to ensure that replacements do not inadvertently result in the adoption of alternatives that pose equal or greater risks to human health or the environment. This concept is notably missing from the proposed CUU application proposal.

The evaluation of alternatives begins with identifying where a chemical is used, followed by efforts to locate a technically viable alternative. The alternative selection process in California and Washington includes a comparison of the hazards, performance, and lifecycle impacts of alternative substances to prevent shifting from one harmful chemical to another. When an alternative is identified, it triggers a multi-year process to comply with federal and state performance and safety requirements. Manufacturers of complex durable goods must initiate a resource-intensive redesign process, which frequently includes prototype development, extensive performance testing, validation under real-world operating conditions, and recertification to ensure continued compliance with applicable safety standards or contractual specifications. Depending on the specific product, trial use by customers can take between 1 and 5 years prior to engineering approval and the ability to start designing with and/or purchasing the new equipment.

To avoid regrettable substitutions after a CUU determination is made due to the lack of an available alternative, the time period that is provided to companies to further investigate alternatives is another important consideration. MPCA is proposing to require simultaneous assessments for a multitude of products and components every five years for novel products and every eight years for existing products. Complex product re-design cycles exceed these timeframes, given asset lives in some cases of up to 40 years. CPMC urges MPCA to consider longer renewals of 15 years or more where needed. These timeframes are more consistent with product redesign cycles for complex durable goods, which may span at least 7 to 15 years or more, particularly for components integrated into safety-sensitive systems. As one example, the transmission and distribution power delivery industry has been working on replacing the greenhouse gas SF6 for close to two decades, which required California (§ 95350) and New York (6 NYCRR Part 495) to develop regulations that are now in place to allow for a staged phase out of the gas over a period of time. In a review after the initial phase out date, users from both states shared their experiences which include actual product lead-times that have turned out to be longer than the original product exemption duration that was granted.

The product redesign process requires a collaborative effort between chemical manufacturers, component manufacturers, and assemblers. The challenge of evaluating alternatives is magnified for complex durable goods that contain hundreds or thousands of

24 https://dtsc.ca.gov/scp/#:~:text=When%20hazardous%20chemicals%20are%20banned,as%20a%20%E2%80%9Cregrettable%20substitution.%E2%80%9D

components, each with distinct functional requirements and validation pathways where the individual components must perform under a range of conditions, including extreme conditions, within the broader system. "Simple" or single chemical substitutions can take years to evaluate and cost millions of dollars. Even when the same component is used in multiple designs, the technical design tests must be repeated for each unique design. If the product contains multiple materials, this testing may be required for each iteration, depending on the function of the material. Once tested and certified to industry standards, the market adoption curve needs to grow to be able to scale manufacturing which also requires additional capital investment.

In a motor vehicle, these chemistries may be used in fuel system seals and gaskets to prevent leaks and withstand exposure to heat and aggressive fuels; in wire and cable insulation to meet fire resistance and dielectric requirements; in transmission and drivetrain components, such as seals, O-rings, and gaskets, to maintain integrity under sustained heat, pressure, and exposure to lubricants and hydraulic fluids; and in lubricants and greases applied to moving parts such as steering assemblies, actuators, bearings, or braking mechanisms, where reduced friction, wear resistance, and performance under extreme temperatures are necessary to ensure safe operation. Each of these functions evaluation of their integrated performance as a whole. The vehicle must perform under 100 °F conditions in Florida and – 30 °F conditions in Minnesota equally well.

CPMC urges MPCA to integrate an assessment of regrettable substitutions in the proposed rules to ensure that regulatory actions genuinely advance public and environmental health, rather than simply exchanging one risk for another and allow additional time beyond 8 years.

VII. Minimize duplicative submissions and allow industry collaboration.

The SCPR allows "a consortium, trade association, public-private partnership, non-profit organization, or other entity acting on behalf of, or in the stead of, the responsible entity" (entity required for conducting the AA).[25] DTSC recognized that working as a group enables manufacturers to significantly reduce their individual costs by submitting a combined AA via a consortium. A consortium approach reduces the number of individually submitted CUU applications the MPCA must review for the same product or component.

Adopting a consortium approach helps to ensure that companies do not simply benefit from previous CUU approvals without contributing to the rigorous assessment process. According to the Draft Rule Concept Summary, an applicant may request a similar CUU determination if the commissioner has already granted a positive CUU determination for a product within the same product category. This process could enable manufacturers who have not invested the significant time, resources, and effort required to evaluate "reasonably available alternatives" to take

[25] 22 C.C.R. §69501.2.

advantage of the work completed by others at no additional cost. Grouping reviews encourages collaboration, fairness, and procedural integrity.

CPMC supports provisions included in the proposed CUU process that enable CUU requests to be submitted by a consortium or group of manufacturers.[26]

VIII. Limit CUU reviews to no more than ten components within a three year period for complex durable goods.

The SCPR and SPP recognize the significant challenges for evaluating complex durable goods. These programs either exempt certain assembled products and internal electrical components from AA assessment altogether (in the case of Washington) or restrict the number of components that undergo an AA to ten over a three year period (in California).

As California and Washington developed their AA programs, they did so in appreciation of the time and volume of information necessary to adequately assess alternatives. Washington DOE has selected nine priority consumer products that contain no more than one to two chemicals of concern for their five-year AA cycle. In California, DTSC has assessed nine priority products since the program began in 2013 and has proposed an additional seven priority products to undergo an AA. This brings the total number of products or components under review in California to 16 over the past 13 years. The modest throughput reflects the reality that to avoid regrettable substitutions, the AA process is highly technical, expensive, and lengthy.

For complex durable goods, a CUU to address each specific PFAS-containing component in a finished product (seal, hose, gasket, etc.) would be a significant undertaking. A component-level alternatives analysis would require engineering teams to identify and work with our supply chain and their suppliers as it concerns the availability (or lack thereof) of non-PFAS containing components that are able to meet our rigorous and demanding design specifications. Several CPMC members estimate that, if a company does not already have CAS-level information on intentionally added PFAS for all components in a product line, it would require more than 500 hours of technical staff time to obtain that information from Tier 2 and Tier 3 suppliers for just one product line. It is difficult to put an exact number on the cost of requesting a determination and the staff hours to determinate the baseline but given the different categories of use this would be a significant undertaking involving several hundred hours of work.

The alternatives assessment for spray polyurethane foam systems with unreacted methylene diphenyl diisocyanatos is 200 pages long.[27] It includes a detailed assessment of the function of the chemical of concern in the product, applicable laws and regulations, availability of

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[26] Draft Rule Concept at pg. 2.

[27] Abridged Alternatives Analysis Report for Two-component Low- and High-pressure Spray Polyurethane Foam Systems Containing Unreacted Methylene Diphenyl Diisocyanate, Prepared for American Chemistry Council, Center for the Polyurethanes Industry, Spray Foam Coalition, October 14, 2020.

alternatives including feasibility and cost considerations. MPCA is proposing to require complex product manufacturers to conduct this type of assessment on multiple components they do not manufacture and all at the same time. Assuming each complex product manufacturer completed an AA and submitted a CUU request for ten components, this would result in hundreds of technical documents for MPCA to review. And since CUU determinations expire after eight years (or five years for novel products) this process will continue repeating. This is not a practical or workable approach. In practical terms, a single finished product could trigger dozens of parallel AAs. The undertaking is further magnified by the fact that all manufacturers would be required to undertake this exercise simultaneously. The cumulative result would be an unprecedented volume of highly technical submissions in a compressed timeframe.

To select the components to be reviewed, SCPR has prioritization criteria to see that AAs are directed toward the uses posing the greatest potential risk to human health and the environment, while also considering the technical and market realities of product design. We recommend MPCA consider similar criteria for prioritization such as:

- **Type and Prevalence:** Prioritize those chemicals that are restricted under national/regional/global regulatory or voluntary frameworks, the amount used, and the number of affected products in the market. Information on these substances is readily available. The OECD figure in Attachment A classifies and identifies in red the restricted chemicals in this broad category.[28]
- **Potential for Exposures:** Prioritize components where there is a reasonable likelihood of public, environmental, or occupational exposure during the product's use or from disposal.
- **Feasibility of Safer Alternatives:** Prioritize components where technically and economically feasible alternatives are most likely to exist.
- **Regulatory and Market Context:** Consider whether the component or its use is already subject to regulatory action in other jurisdictions.

These (or similar criteria) are consistent with the goal of minimizing those chemicals with life cycle impacts on contamination and public health.

CPMC encourages MPCA to limit the number of CUU applications to no more than 10 within a three year period for complex products and include a process to prioritize selection of those 10 products or components.

[28] Department of Toxic Substances Control, Product-Chemical Profile for Carpets and Rugs Containing Perfluoroalkyl or Polyfluoroalkyl Substances, October 2019, page 13.

IX. Conclusions and recommendations.

CPMC supports a workable CUU process in Minnesota that acknowledges the unique circumstances for complex durable products and builds upon the experience of the SCPR and SPP programs. We think the cornerstones to accomplish this goal include the following:

1. Allow flexibility to select a finished product or a specific component for AA evaluation;
2. Defining "reasonably available" to include technical feasibility, economic feasibility, and achievable within a reasonable timeframe.
3. Seeking to avoid regrettable substitutions and provide additional time beyond 8 years for complex durable goods to reflect the longer product lead times.
4. Enabling manufacturers of specific products or components to take a collaborative approach to evaluate alternatives.
5. Limit CUU applications to no more than 10 components within a three-year period for complex durable products and establish criteria for selecting the products of components and fluorinated chemicals for assessment.

CPMC notes that Simona Balan, with DTSC, and Marissa Smith, with DOE, are members of the rulemaking "check-in" group in Minnesota. We encourage MPCA to leverage their strong expertise to design a practical CUU process for complex durable goods that includes the aspects of the SCPR and SPP outlined above. For further information contact Martha Marrapese, Counsel to CPMC, mmarapese@wiley.law /202-719-7156.

Attachment

Attachment A

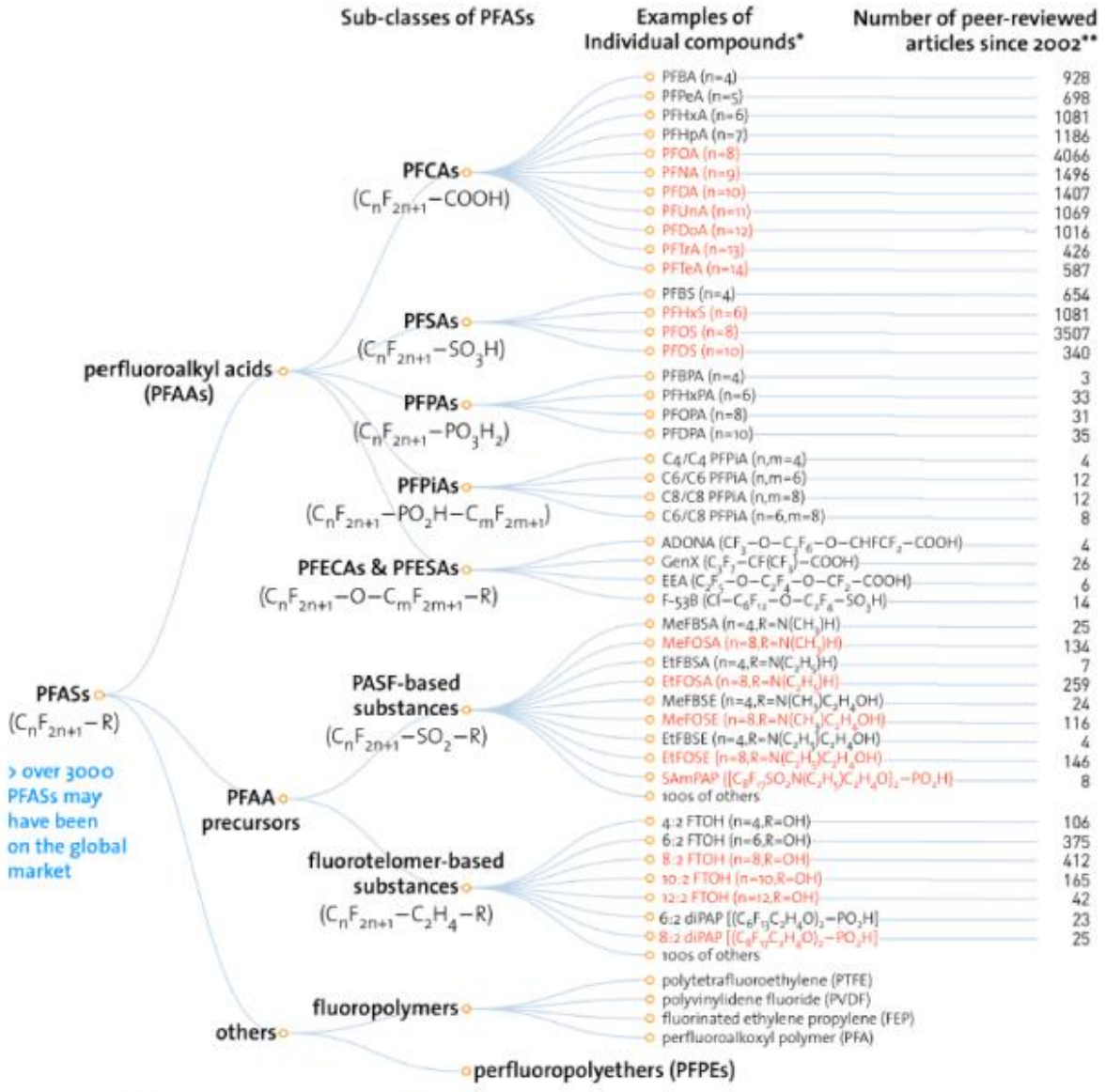

Figure 1: General classification of PFASs. Reprinted (adapted) with permission from Environ. Sci. Technol. 51, 5, 2508-2518 (Wang et al. 2017b). Copyright 2017 American Chemical Society.

The Honorable Katrina Kessler
Commissioner
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

Re: CPMC Comments Part 2: Additional Concepts for Currently Unavoidable Use Process

Dear Commissioner Kessler:

The Complex Products Manufacturers Coalition (CPMC or Coalition) appreciates the opportunity to submit written comments in response to draft concepts the Minnesota Pollution Control Agency (MPCA) has put forward for new rules governing how the MPCA determines currently unavoidable uses (CUUs) of per- and polyfluoroalkyl substances (PFAS) in products. Minnesota broadly defines this "catch-all" term as a class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom, will qualify as currently unavoidable uses in products sold, offered for sale, or distributed for sale in Minnesota, as directed by Minn. Stat. § 116.943.[1] There are several different groups of chemicals under this umbrella.

These comments supplement the dedicated comments CPMC is submitting on the alternatives assessment (AA) portion of the CUU determination process. CPMC's comments on AAs are intended to shine a spotlight on the impossible workload envisioned by the proposed CUU framework concept which would require that ALL components of ALL complex durable goods sold in Minnesota undergo an AA if they contain any type of fluorinated organic chemical. In these comments, CPMC urges MPCA to adopt the following measures for the regulation of complex durable goods:

1. Propose and adopt a definition of complex durable goods that aligns with that in other states.

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[1] CPMC brings together individual businesses and trade associations with multi-component consumer and non-consumer products and complex, international supply chains. With 23 members that include trade associations and individual companies, CPMC represents a wide cross-section of products that are essential for health, safety and the functioning of society. These products—including home appliances, on and off-road vehicles, the regulated engines that go into these on- and off-road vehicles and equipment, recreational and commercial vessels, engines and components, outdoor power tools and equipment, lighting, heating, ventilation, cooling, refrigeration, and water heating equipment (HVACR-WH), electronics, and their replacement parts—support vital sectors of the economy, including government, the military, law enforcement, first responders, food and agriculture (including commercial fishing and sea farming), energy, transportation and logistics, public works and infrastructure support, critical manufacturing, the defense industrial base, conservation, and life-saving backup power, climate control and ventilation in homes, hospitals, schools and universities, eldercare facilities, food preservation and processing, and laboratory and life sciences facilities. Fluoropolymers and elastomers are used to ensure safety and durability, particularly in high-performance environments where failure would be costly and also potentially catastrophic. Due to extreme performance requirements, functionally equivalent alternatives may not be available in all cases.

2. Include a provision in the rule, consistent with the statute, stating that a product for which federal law governs in a manner that preempts state authority is exempt from the CUU process and listing specific federal statutes to which this applies.

3. Exempt fluoropolymers.

4. Include a provision for recognition of CUU determinations by other states and exercise the authority provided by statute to propose CUU designations for products that are exempt from the CUU process in Maine and New Mexico.

5. Provide trade secret protection for proprietary information on extreme performance requirements.

As of now, CUU exemption requests will have to be filed for complex durable goods that support nearly every major sector in the nation, providing critical and often life-saving services. These products include appliances, electronics, space and water heating, refrigeration, air conditioning, ventilation, regulated engines, outboard motors, lighting and security, power tools and equipment, electric power generation, communication devices, vehicles, vessels, their components and replacement parts. Relying on the CUU process alone to keep essential products available to Minnesotans will not work given the sheer number and diversity of products, components, and suppliers involved. At the current scale, delay, uncertainty, and disruption to the availability of critical products is unavoidable. The breadth of complex durable goods—spanning nearly every major sector of the economy—means that the administrative and technical demands of the CUU process, without further guardrails, will quickly exceed what MPCA or manufacturers can realistically manage.

I. Minesota Statutes Section 116.943.

To provide context, these comments address concepts published by MPCA for the purpose of developing a proposed rule to implement Subd. 5(d) which states:

> (d) Beginning January 1, 2032, a person may not sell, offer for sale, or distribute for sale in this state any product that contains intentionally added PFAS, unless the commissioner has determined by rule that the use of PFAS in the product is a currently unavoidable use. The commissioner may specify specific products or product categories for which the commissioner has determined the use of PFAS is a currently unavoidable use. The commissioner may not determine that the use of PFAS in a product is a currently unavoidable use if the product is listed in paragraph (a).

The provision above make the CUU process unavailable for products that were banned from sale or distribution in Minnesota as of January 1, 2025.

The term “currently unavoidable use” is defined in Subd. 1(j) as:

> (j) "Currently unavoidable use" means a use of PFAS that the commissioner has determined by rule under this section to be essential for health, safety, or the functioning of society and for which alternatives are not reasonably available.

The language of this definition establishes a two part test for a positive CUU determination. A product must qualify as essential and no alternative exists that is reasonably available. The concept draft includes proposed definitions for the terms "alternative", "essential for health, safety or the functioning of society", and "reasonably available".

In addition, Minn. Stat. § 116.943 Subd. 8(a)(1) expressly exempts "a product for which federal law governs the presence of PFAS in the product in a manner that preempts state authority" from all of the requirements of Section 116.943, including the 2032 product ban. The proposed rule should be clear that no CUU determination is required for these products.

II. Challenges the CUU process presents for complex durable goods.

CPMC asks MPCA to take the following factors into consideration in preparing this rule. Complex durable goods manufacturers assemble finished goods with 100 components or more. An outboard engine alone has 1,400 components. These components are sourced through global, multi-tier distribution and supply chains. The finished good manufacturer does not have detailed information on the design and construction of every component. That information may be stored (and protected as proprietary information) two to seven commercial distribution agreements away, in another company, and in another country. Not all complex durable goods manufacturers have decision-making authority on the composition of a component or the timing of changes to a component. To avoid supply chain disruptions, alternatives must be readily available in sufficient quantities. Adequate time must be allowed to safely redesign and requalify the component(s) and the finished product(s). Complex durable goods have long-term product development cycles on the order of 7 to 20 years. A CUU framework that does not account for these realities risks incentivizing market withdrawal rather than meaningful progress toward safer alternatives.

III. Request for a definition of complex durable goods.

First, CPMC respectfully asks that MPCA acknowledge that complex durable goods are a unique category of products by adding this term for definition in the CUU rule. <u>The following definition should be used:</u>[2]

> <u>the term "complex durable goods" means manufactured goods composed of 100 or more manufactured components, with an intended useful life of 5 or more years, where the product is typically not consumed, destroyed, or discarded after a single use.</u>

This definition is already used by states. It is incorporated by California into state's green chemistry law, the Safer Consumer Products Regulations.[3] Vermont defines "complex durable good" in the

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2 15 U.S.C. § 2605(6)(c)(2)(D)(ii)(II).

3 22 C.C.R. §69503.5(d).

same way.[4] New Mexico has adopted this definition.[5] Doing likewise will permit MPCA to readily distinguish products that have hundreds of components from those that do not. MPCA could also consider the definition of component from the Federal Acquisition Regulations (FAR) (e.g., 48 C.F.R. § 25.003):

> an article, material, or supply incorporated directly into an end product or construction material. Components may consist of parts, which may be raw materials, ingredients, or assemblies.

IV. Incorporate the statute's federal preemption provision in the rule.

The federal preemption clause in Minnesota's statute in Subd. 8 addresses critical sectors of the economy: on and off-road vehicles, marine vessels, and the use of refrigerants in complex durable goods. Many federal safety and performance regulations do not list specific ingredients, but that is not required for preemption to apply. Where federal law deliberately assigns discretion, the U.S. Supreme Court has held that state laws which attempt to override that balance defeat the regulatory cohesion Congress intended and would convert federally authorized options into *de facto* prohibitions. Preemption is designed not merely to prevent direct contradictions, but also to protect federal regulatory judgments from being second guessed and undermined by state-level reexamination of the same technical or policy questions entrusted to federal authority.

A. Automotive.

Under the National Traffic and Motor Vehicle Safety Act (NTMVSA), the Department of Transportation (DOT) has issued Federal Motor Vehicle Safety Standard (FMVSS) 209 governing seat belt assemblies. FMVSS 209 requires that materials used in seat belts be capable of sustaining minimum restraint forces; be treated to prevent unraveling; and be resistant to abrasion, light, and micro-organisms. 49 C.F.R. § 571.209. Similarly, FMVSS 302 governs flammability of interior materials and requires, among other things, that an interior material "not burn or transmit a flame front across its surface at a rate of more than 102 mm per minute." 49 C.F.R. § 571.302. Fluoropolymers and elastomers are typically used to meet these standards, even though they are not listed in the standard itself.

Additionally, FMVSS No. 106 (Brake Hoses) establishes detailed performance and durability requirements for hydraulic, air, and vacuum brake hoses and brake hose assemblies used in passenger vehicles, trucks, buses, and motorcycles. 49 C.F.R. § 571.106. Compliance with FMVSS 106 requires manufacturers to subject brake hoses and hose assemblies to extensive testing, including pressure and burst strength tests, expansion tests, whip and fatigue testing,

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[4] Vermont Act 54 (H.238) of 2025, amending Act 131 (2024) (See 9 V.S.A. § 2494e – Definitions.

[5] New Mexico Environment Department (NMED), Rebuttal Rule, Title 20, Ch. 13, Part 2, prohibitions on products containing per- or poly-fluoroalkyl substances; currently unavoidable use; reporting; labeling; testing; fees and penalties, adopted by New Mexico Environmental Improvement Board, March 23, 2026.

temperature resistance testing, ozone resistance testing, corrosion resistance testing of end fittings, and compatibility testing with brake fluids. These tests are designed to simulate real-world operating conditions and ensure that brake system components do not fail under stress, as such failures could result in loss of braking capability and serious safety risks. Because brake hoses are safety-critical components, any change in materials—such as substituting an elastomer, coating, or reinforcement layer—would generally require a manufacturer to reestablish compliance with FMVSS 106 through repeat testing and validation. These examples also illustrate that alternatives, if available, will trigger a lengthy process of re-certification. Recertification includes redesigning components and extensive testing and it cannot be accelerated without compromising public safety.

B. Marine vessels and accessories.

In the marine industry, vessels and accessories must withstand the harsh operating conditions that can be encountered during ocean, lake, and river transportation. For marine propulsion systems, for instance, traditional non-fluorinated elastomers cannot meet federal Environmental Protection Agency (EPA) fuel permeation limits (40 C.F.R. § 1060.102) without becoming impractically rigid, nor can they withstand the chemical aggression of mandatory EPA Vessel General Permit (VGP) – Clean Water Act Environmentally Acceptable Lubricant (EAL) testing without suffering rapid structural degradation. Consequently, the forced removal of fluoropolymers without a validated, chemically equivalent replacement would not drive the adoption of "safer" materials, but would instead force a technical regression, necessitating the use of inferior components prone to premature failure, increased evaporative emissions, and compromised vessel safety. To meet the EPA's strict evaporative emission standard of $\leq$ 15g/m^2/day (40 C.F.R. § 1060.102), fuel hoses rely on a thin internal layer of fluoropolymer (PVDF or THV). Traditional rubber hoses without this barrier have permeation rates significantly higher than the EPA limit (often exceeding 100g/m^2/day). While rigid materials like nylon (PA12) can block permeation, they lack the flexibility required to route fuel lines through tight, vibrating engine bilges. Only fluoropolymers offer the necessary combination of flexibility and impermeability.

C. Significant New Alternative Program (SNAP) refrigerants.

Section 612(d) of the Clean Air Act (CAA) provides in relevant part:

> No State or political subdivision thereof may prohibit any person from using a substitute that the Administrator has determined is acceptable under this section.

42 U.S.C. § 7671k(d)). Under SNAP, federal preemption of state regulation is use-specific. Section 612 prevents states from flatly banning a refrigerant substitute that EPA has affirmatively listed as acceptable with respect to the same end-use.

The SNAP refrigerants in use today in the United States have been well-vetted by EPA. As one example, 1,1,1,2-tetrafluoroethane (HFC-134a with CASRN 811-97-2) is a short-lived

chemical, used in meter-dose inhalers (MDIs) used by patients with asthma. HFC-134a breaks down in the atmosphere in the presence of hydroxyl radicals and other atmospheric chemistries to simple chemical building blocks and trifluoroacetic acid (TFA). EPA has excluded TFA from its risk-based definition of PFAS in recognition that TFA is a well-studied, low toxicity substance.[6] The United Nations Environmental Programme's (UNEP) 2022 Assessment Report also found that TFA "does not interact with biological molecules and, due to its high solubility in water, it does not bioaccumulate. It is unlikely to cause adverse effects in terrestrial and aquatic organisms."[7]

D. Precedent for this approach.

Geier v. American Honda Motor Co., 529 U.S. 861 (2000) supports the proposition that allowing states to reassess the necessity of particular federally regulated ingredients or components in preempted fields frustrates the federal objective. The Supreme Court considered whether a state tort claim was preempted by federal motor vehicle safety regulations issued under the NTMVSA. DOT had promulgated FMVSS 208, which deliberately allowed automobile manufacturers a range of compliance options for passive restraint systems during a phased-in regulatory period, including installing seatbelts, airbags, or other technologies. The plaintiff brought a state law claim alleging that Honda was negligent for failing to install a driver-side airbag, even though the vehicle complied with FMVSS 208.

The Court held that the state tort claim was preempted under ordinary conflict, or 'obstacle,' preemption principles. The Court reasoned that the federal regulatory scheme was intentionally structured to preserve manufacturer choice and promote gradual technological development. Allowing a jury to impose liability for the absence of an airbag would effectively eliminate federally permitted compliance options and frustrate the objectives of the federal regulation. Accordingly, the Court concluded that the state claim was preempted.

Fluorinated chemicals are expensive and so they typically are only used when necessary to meet air quality emission requirements, fire and building codes, interconnection requirements, or industry certification standards. The use and reliance on certain fluorine containing chemicals in complex durable goods is driven not by convenience or cost considerations, but by fundamental engineering requirements and federal regulatory obligations. With the foregoing in mind, CPMC requests rule language that identifies specific areas of preemption for which a CUU request is not required. More than general language in the statute is needed for certainty and clarity. Items 2, 4, 6, 7, and 9 in Attachment A meet these criteria and should be part of the proposed rule.

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6 40 C.F.R. § 705.3.

7 EEAP, *2022 Assessment Report of Stratospheric Ozone Depletion, UV Radiation, and Interactions with Climate Change* at 5 (May 2023), available online at: https://ozone.unep.org/system/files/documents/EEAP-2022-Assessment-Report-May2023.pdf.

V. Fluoropolymers.

Minnesota's definition is not a proxy for risk. The organization that developed this definition, the Organization for Economic Cooperation and Development (OECD),[8] specifically cautions against using the definition to reach overarching conclusions about risk:

> It should be noted that the revised definition of PFASs in Section 2.3 refers to a general definition of PFASs that is coherent and consistent across compounds based on chemical structure and is easily implementable for distinguishing between PFASs and non-PFASs, also by non-experts. It does not include any minimal or maximal chain length requirements, or any other considerations beyond chemistry. It also does not conclude that all PFASs have the same properties, uses, exposure and risks (emphasis added).[9]

The OECD further states that: "[a]s PFASs are a chemical class with diverse molecular structures and physical, chemical and biological properties, it is highly recommended that such diversity be properly recognized and communicated in a clear, specific and descriptive manner."[10] Please refer to the Interstate Technology & Regulatory Council (ITRC) 2023 table in Attachment B that distinguishes fluorinated chemicals.

Evidence of potential hazards is in reference almost exclusively to PFOA, PFOS, or other perfluoroalkyl acids (PFAAs) with similar properties (for example, PFHxA or perfluorobutanoic acid (PFBA)). Commercial products which contain Long-Chain Perfluoroalkyl Carboxylates (LCPFACs), a category which includes PFOA, PFOS, PFHxA, and PFBA, are subject to significant restrictions in the United States. These substances have been largely phased out in the United States since 2002 (PFOS[11]) and 2015 (PFOA[12]). For LCPFAC, in addition to a national voluntary phase out program, EPA has addressed potentials for cancer and other associated risks through significant new use rules (SNURs) which ban the resumption of any uses of LCPFAC that have been discontinued in the United States.[13]

Fluoropolymers are not in this group and have different lifecycle considerations. Fluoropolymers are large, highly stable molecules, insoluble in water, and are not bioaccumulative. The use of PFAAs as polymerization aids by the fluoropolymer industry is being phased out

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8 OECD (2021), Reconciling Terminology of the Universe of Per- and Polyfluoroalkyl Substances: Recommendations and Practical Guidance, OECD Series on Risk Management, No. 61, OECD Publishing, Paris.

9 *Id.* at p. 31 (emphasis added).

10 *Id.* at p. 8.

11 EPA, "EPA and 3M Announce Phase Out of PFOS" (May 16, 2000).

12 EPA, "Fact Sheet: 2010/2015 PFOA Stewardship Program" (Last visited February 12, 2026)

13 See, e.g., EPA, "Long-Chain Perfluoroalkyl Carboxylate and Perfluoroalkyl Sulfonate Chemical Substances; Significant New Use Rule," 85 Fed. Reg. 45109 (July 27, 2020) codified at 40 C.F.R. § 721.10536.

globally and these facilities are installing on site treatment to prevent releases to water and air. A recent study on the thermal decomposition of fluoropolymers investigated the thermal stability and degradation products of polytetrafluoroethylene (PTFE), polychlorotrifluoroethylene (PCTFE), and polyvinylidene fluoride (PVDF) across temperatures ranging from 200 to 890 °C. Different from previous studies, no short- or long-chain moieties were detected under any tested condition. Among the investigated polymers, PTFE showed high stability, remaining intact until ≥ 550 °C and then mainly depolymerizing to tetrafluoroethylene (C_2F_4). This study demonstrates that these commonly used fluoropolymers are stable at temperatures that almost no products are exposed to during normal use or disposal.[14]

The U.S. Food and Drug Administration (FDA) commissioned an independent review which establishes the importance and safety of PTFE in medical devices.[15] The review, performed by the Emergency Care Research Institute (ECRI), includes data from over 1,800 health care provider organizations around the country. ECRI found no conclusive evidence of patient health issues associated with PTFE as a material, an important finding given that no other materials exist that can perform the critical roles of fluoropolymers in medical devices. As one of the most commonly used polymers in a variety of products and applications, PTFE has been well-studied and shown to be a large, highly stable molecule, with adjustments taking place commercially to identify and use non-fluorinated polymerization aids during manufacture. PTFE is insoluble in water, it does not break down in the environment, and it is not bioaccumulative.

It is not scientifically grounded or feasible to eliminate every type and use of fluorinated chemistry to address life cycle considerations. Not all substances covered by the state's definition are remediation threats and fluoropolymers are but one example. CPMC urges Minnesota to consider how to prioritize CUU reviews of PFAAs that partition to water and bioaccumulate.

VI. MPCA should use its authority to include CUU determinations for complex durable goods in the proposed rule and allow for mutual recognition.

Maine and New Mexico do not require many of the complex durable goods affected by this rule to undergo CUU analysis. CPMC urges MPCA to adopt the same approach. The statute's language allows MPCA to determine by rule a use is a currently unavoidable use.[16] The statute does not require manufacturers of complex durable goods to submit individual applications or product-specific demonstrations as a prerequisite to a CUU determination.

Complex durable goods include commercial and consumer products such as communication devices, electronics, appliances, vehicles, vessels, boats, motors, heating,

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14 Alireza Arhami Dolatabad, Xuejia Zhang, Jiamin Mai, Alena Kubátová, Jiefei Cao, Feng Xiao, "Thermal decomposition of fluoropolymers: Stability, decomposition products, and possible PFAS release", Journal of Hazardous Materials (July 23, 2025).

15 U.S. Food and Drug Administration, PFAS in Medical Devices (August 6, 2025).

16 Minn. Stat. § 116.943, Subds. 5(d) (2023).

ventilation, air conditioning, refrigeration, and water heating equipment (HVACR-WH), electronics, and their replacement parts. These products serve and support nearly every major sector in the nation, providing critical products and services for government agencies, the military, law enforcement, first responders, and public safety, food and agriculture, energy, transportation and logistics, public works and infrastructure support services, critical manufacturing, the defense industrial base, conservation, and life-saving climate control and ventilation in homes, hospitals, schools, and eldercare facilities, for food preservation and processing and for critical health and life sciences. Services dependent on refrigeration include everything from the prevention of dangerous food spoilage to life-giving medicines, vaccines, proteomics, therapeutics, blood plasma, and other temperature-dependent elements in the life sciences and pharmaceutical sectors. Collectively these products and services are vital to public safety and the economy.

Due to the timeframes (on the order of 7 to 20 years) that are necessary required to replace ingredients and components in complex durable goods, we know today that changes cannot be achieved by 2032. The trade-off of not having these essential products available in 2032 meets the proposed criteria in the concept draft of resulting in a "significantly increase negative health outcomes" and a "significant disruption of commercial, public, or ecosystem services on which society relies" including the provision of (1) food, water, shelter, health, hygiene; (2) transportation and utilities such as gas, electricity, data, communications, and sewer; (3) personal, occupational, or public safety particularly for extreme conditions of use; and (4) other services.

A CUU also requires a finding that alternatives are not reasonably available. With respect to complex durable goods, based on the known product development cycle for these products, it is not feasible to have alternatives and redesign products ready by 2032. Many requirements contribute to the extended timeframe necessary for these products to identify and evaluate alternatives, if any. These requirements include federal and state air quality emission requirements, state and local fire and building codes, federal and state interconnection requirements, and industry certification standards. The inability to meet the 2032 ban should be sufficient to make this part of the CUU determination.

For example, a CUU determination by rule, absent a CUU application, is warranted for the electric generation sector. The switch gears in these systems are used in sealed, closed-loop equipment with long lifespans (40+ years). These assets are designed to withstand environmental threats and seldom require intervention or maintenance. Further, they are designed and located to not be accessible to the public. This combination of factors means that there is a much lower risk of human contact/human exposure or environmental contamination. The process of identifying these chemicals in components and supply chains, researching feasible alternatives, and implementing changes will take many years beyond January 1, 2032. Three states already exclude "non-consumer electronics and non-consumer laboratory equipment not ordinarily used for personal, family or household purposes and/or for 'product used for the generation, distribution or storage of electricity": Maine § 1614, New Jersey P.L. 2025, c. 202, and New Mexico, H.B. 212.

The benefits of proposing CUU determinations early on for complex durable goods with known and lengthy product development cycles has been recognized in Europe under the REACH derogation system. The potential costs of proceeding to require hundreds of submissions and accelerated timeframes in disregard of important and competing safety and performance considerations is high. For example, with respect to engines, due to the variety of fuels that may be used, a broad level of compatibility is needed. Fluoroelastomers provide this ubiquitous level of compatibility that cannot be achieved with alternatives. To transition to a substandard material would result in fuel leaks within the first year of the product's life. This would lead to safety and environmental hazards.

In addition, CPMC respectfully requests that Minnesota include a provision in its proposed rule recognizing CUU determinations issued by other states with comparable statutory standards and review processes. Recognition of such determinations promotes regulatory coherence, reduces duplicative administrative proceedings, and provides regulated entities with clearer and more predictable compliance obligations, while preserving Minnesota's authority to deny recognition where another state's determination is inconsistent with Minnesota law or policy objectives.

For the foregoing reasons, CPMC urges MPCA to exercise the statutory authority provided in Minn. Stat. § 116.943, Subd. 5(c) to propose CUU determinations for the products in HF 4257, with slight modifications as listed in Attachment A, in the proposed rule. These are complex durable goods that either do not have to undergo CUU analysis in any other state or which otherwise qualify as a CUU.

VII. Trade secret protection.

CPMC thanks MPCA for recognizing (MPCA question 12) that trade secret information will require protection as part of the CUU determination process. For example, in the last five years the growth of new energy technologies and additional infrastructure has led to investments in componentry in a highly evolving market innovation landscape to meet the growing electro-system needs. CPMC appreciates the clarity MPCA is providing by identifying information that qualifies as trade secret information under Minn. Stat. § 13.37. The eligible data categories include chemical name; chemical identifying number; chemical concentration or formula; reformulation or redesign of the product, technique, or production process that a manufacturer may need to implement an alternative; the physical description that would best identify a non-chemical alternative; and specific supply chain information. CPMC supports these trade secret designations.

CMPC also supports MPCA's list of extreme performance requirements. Fluorinated compounds deliver exceptional thermal stability and chemical resistance, making them the sole practical option for mission critical systems that must withstand the extreme corrosive and high temperature conditions inherent to the use of these products. The refrigerants, fluoropolymers, and elastomers in complex durable goods are used to provide performance and safety attributes that ensure these products can operate in all conditions, including extreme conditions. These conditions

are precisely why these substances are and will continue to be needed in complex durable goods. However, the reasons may be competitively sensitive. CPMC asks MPCA to consider the need for trade secret protection with respect to "extreme conditions of use".[17] Extreme performance rationales are highly relevant to CUU determinations, and the manner in which these substances are used to safety and reliability may be commercially sensitive information.

VIII. Conclusion.

The Coalition sincerely appreciates the opportunity that these proceedings offer to communicate our concerns and suggestions for practicable implementation for complex durable goods, recognizing the substantial benefits of avoiding disrupted access to these products by Minnesotans. These comments supplement the dedicated comments CPMC is submitting on the AA portion of the CUU determination process. Please consider a CUU proposed rule that also:

1. Includes a definition of complex durable goods that aligns EPA and in other states.
2. Propose a list of products for which federal law preempts state authority that do not require a CUU designation.
3. Consider exempting fluoropolymers from the CUU process.
4. Provide mutual recognition of CUU determinations by other states and exercise the statutory authority provided in Minn. Stat. § 116.943, Subd. 5(c) to propose CUU designations, without the need for CUU applications, that the products listed in HF 4257, with slight modifications as outlined in Attachment A.
5. Allow additional trade secret protection for proprietary information on extreme performance requirements.

For further information contact Martha Marrapese, Counsel to CPMC, mmarapese@wiley.law/202-719-7156.

Attachments

[17] These conditions are high or low operating temperatures, or both; High or low material pH, or both; high corrosivity; low reactivity with one or multiple chemicals; high or low operating pressures, or both; high tear, crack, or other stress potential; high or the possibility of high friction or vibration; high or sustained humidity or moisture; high or concentrated voltage requiring dielectric strength; and elevated radiation levels.

Attachment A

Products listed in HF 4257 (with slight modifications) that MPCA should determine by rule—under Minn. Stat. § 116.943—to be currently unavoidable uses without requiring a CUU application.

Key –
Federal Preemption
Exemptions to Product Bans by 2032 in Maine and New Mexico
Exemptions for additional Complex Durable Goods

(1) heating, ventilation, air-conditioning, cooling, refrigeration, and water heating (HVACR-WH) equipment that contains intentionally added PFAS or refrigerants listed as acceptable, acceptable subject to use conditions, or acceptable subject to narrowed use limits by the United States Environmental Protection Agency pursuant to the Significant New Alternatives Policy Program, Code of Federal Regulations, title 40, part 82, subpart G, and sold, offered for sale, or distributed for sale for the use for which the refrigerant is listed pursuant to that program;

(2) a veterinary product for use in or on animals, including diagnostic equipment or test kits and the veterinary product's components, and any product that is a veterinary medical device, drug, biologic, or parasiticide or that is otherwise used in a veterinary medical setting or in veterinary medical applications that are regulated by or under the jurisdiction of:

(i) the United States Food and Drug Administration;

(ii) the United States Department of Agriculture, pursuant to the federal Virus-Serum-Toxin Act; or

(iii) the United States Environmental Protection Agency, pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act, excluding any products approved by the United States Environmental Protection Agency pursuant to that law for aerial and land application;

(3) a product developed or manufactured for the purpose of public health, environmental, or water-quality testing;

(4) a product required to meet standards or requirements of the United States Department of Transportation, Federal Aviation Administration, the National Aeronautics and Space Administration, the United States Department of Defense, the United States Coast Guard, or the United States Department of Homeland Security;

(5) a motor vehicle or motor vehicle equipment regulated under a federal motor vehicle safety standard, as defined in United States Code, title 49, section 30102(a)(10), and any other motor vehicle, including an off-highway vehicle or a specialty motor vehicle, such as an all-terrain vehicle, a side-by-side vehicle, farm equipment, non-road mobile machinery, or a personal assistive mobility device;

(6) a marine vessel, including marine accessories and marine equipment, regulated by the Federal Boat Safety Act, 46 U.S.C. § 43, an aircraft, a lighter-than air aircraft or a seaplane;

(7) a semiconductor, including semiconductors incorporated in electronic equipment, and materials used in the manufacture of semiconductors;

(8) nonconsumer electronics and laboratory equipment not ordinarily used for personal, family, or household purposes;

(9) a product that contains intentionally added PFAS with uses that are currently listed as acceptable, acceptable subject to use conditions, or acceptable subject to narrowed use limits in the United States Environmental Protection Agency's rules under the Significant New Alternatives Policy Program if the product contains PFAS that are being used as substitutes for ozone-depleting substances under the conditions specified in the federal rules;

(10) a product used for generating, distributing, or storing electricity;

(11) a product that contains fluoropolymers consisting of polymeric substances for which the backbone of the polymer is either a perfluorinated or polyfluorinated carbon-only backbone or a perfluorinated polyether backbone and that are solid at standard temperature and pressure;

(12) a product that contains intentionally added PFAS in electronic components or internal components and enclosures of such components;

(13) a complex durable good composed of 100 or more manufactured components with an intended useful life of five or more years when the product is typically not consumed, destroyed, or discarded after a single use;

(14) an electronic or mechanical device composed of multiple manufactured components with an intended useful life of three or more years when the product is typically not consumed, destroyed, or discarded after a single use and the components of which would be impracticable to redesign or replace;

(15) a product component of an item described in clause (13) or (14); and

(16) equipment, parts, components, or materials directly used in the manufacture, development, servicing, or maintenance of the products described in clauses (1) to (15).

Attachment B - Interstate Technology & Regulatory Council (ITRC) Table

https://pfas-1.itrcweb.org/wp-content/uploads/2023/09/PFAS_figure_2-5_May2024.pdf