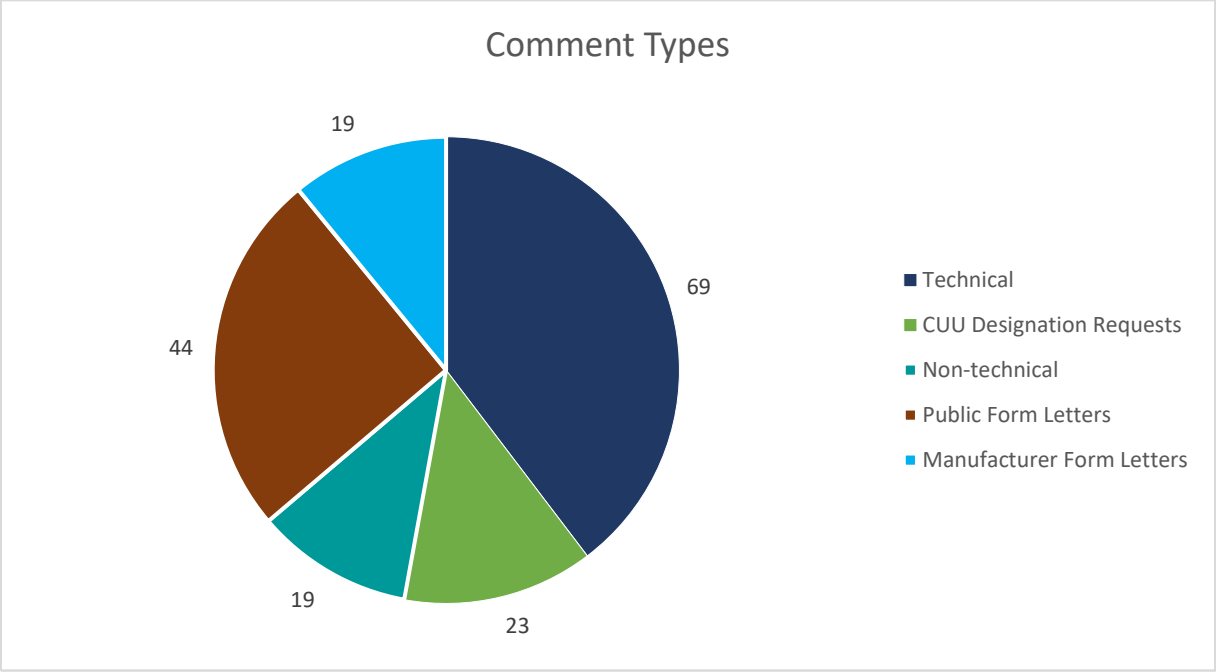
MINNESOTA POLLUTION CONTROL AGENCY

Summary of comments received on PFAS in Products Currently Unavoidable Use Rulemaking Request for Comments (RFC):

Overview: 174 comments were received with a total of 1,807 pages of comments and attachments. 508 of these pages contain information supporting 23 specific currently unavoidable use (CUU) proposals.

Figure 1. This chart depicts the types of comments that were received in response to the RFC.



In the chart above, "Technical" means the commenter attempted to answer at least some of the RFC questions posed. Of these comment types, 5 were from the public and 64 were from entities (including both manufacturers and environmental groups).

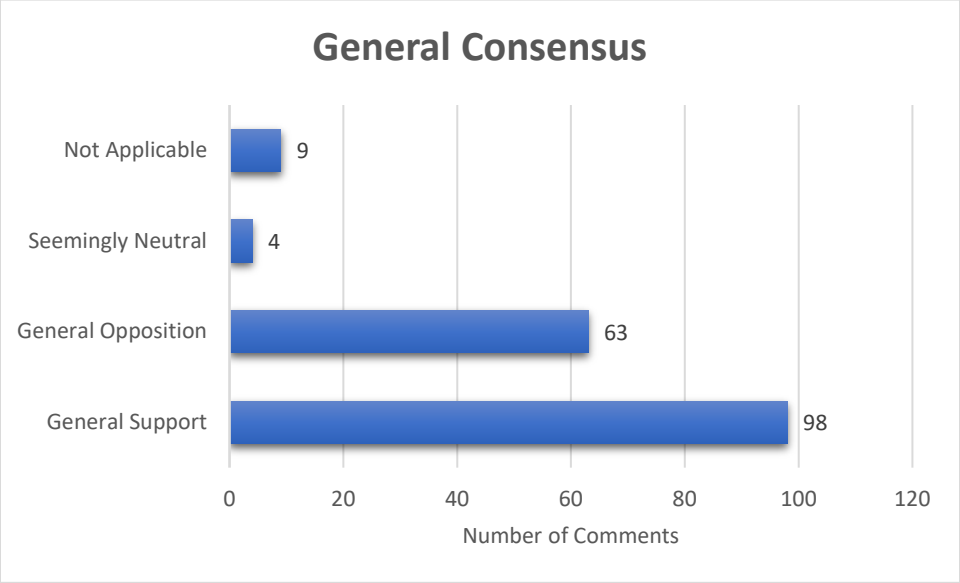
"CUU Designation Requests" means the commenter did not attempt to answer any of the RFC questions posed, and only submitted comments and attachments supporting their PFAS in product CUU designation request.

"Non-technical" means the commenter did not attempt to answer any of the RFC questions posed. Of these comment types, 14 were from the public and 5 were from manufacturers.

"Public Form Letters" were from the general public and contained comments where part or all of the language was verbatim.

"Manufacturer Form Letters" were from manufacturers that submitted a comment supporting another comment submittal.

Figure 2. This chart depicts the general consensus of the comments received and whether they were in support of or opposed to the rulemaking.

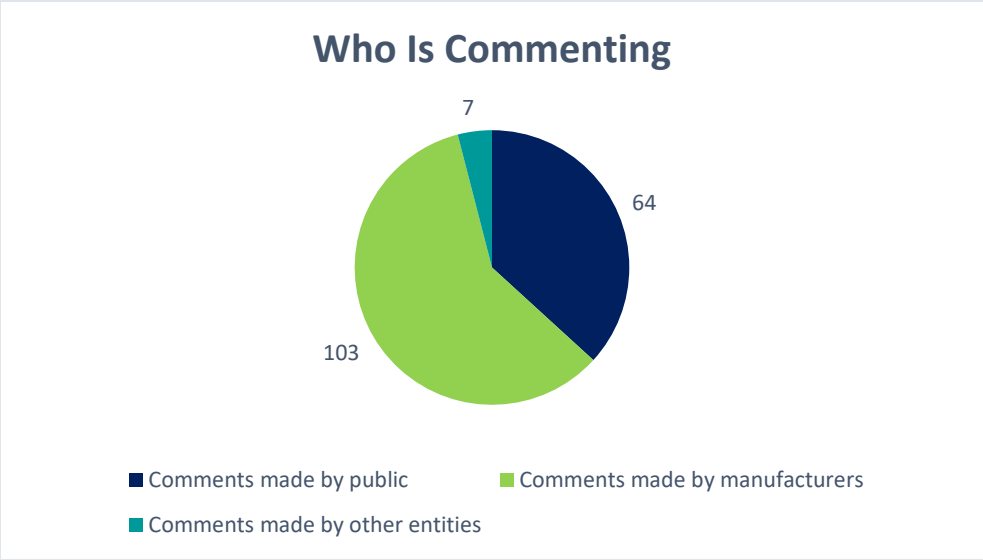


The chart above represents the general consensus of the comments received in response to the request for comments. Comments that were deemed “not applicable” were unrelated comments (referencing the wrong rule) or comments made to provide additional attachments (eComments limits three attachments per comment). Comments that were deemed “seemingly neutral” were those that did not explicitly say whether they were in support or opposition of the proposed rulemaking.

In general, members of the public who submitted comments were opposed to the rulemaking, specifically stating that no or very few products should receive a currently unavoidable use (CUU) determination. Most did acknowledge that if CUU determinations were going to take place, they would like to see strict regulations that support alternatives and the ultimate phase-out of PFAS use in products.

In general, manufacturers and entities representing manufacturers who submitted comments were supportive of the rulemaking, although some expressed opposition to the definition of PFAS given and requested exemptions for “polymers of low concern” such as fluoropolymers and fluoroelastomers. Some also opposed the state taking the lead on the rulemaking rather than waiting for Environmental Protection Agency (EPA) action.

Figure 3. This chart depicts who submitted comments in response to the RFC.



Twenty-three of the comments by manufacturers were CUU designation requests for their products containing intentionally added PFAS.

Comments made by other entities (7 received) included those from the Clean Water Action, Natural Resource Defense Council, MN Chamber of Commerce, Water Legacy, Leech Lake Band of Ojibwe, MN Center for Environmental Advocacy (MCEA) and Clean Up the River Environment (CURE), and the King County (WA) Hazardous Waste Program. In general, the MN Chamber of Commerce supports the rulemaking and CUU designations that will support product manufacturers. The comments made by the other entities listed generally called for strict CUU determinations that result in rulemaking that is protective of the environment.

Summary of Responses:

1) Should criteria be defined for "essential for health, safety, or the functioning of society"? If so, what should those criteria be? (65 answers)

Manufacturers and entities that are in support of currently unavoidable use determinations for products containing intentionally added PFAS seemed to generally agree with each other that criteria should be defined for "essential for health, safety, or the functioning of society".

Many referenced Maine's proposed definitions or requested that definitions be added to clarify what criteria apply to "essential for health", "essential for safety", and "essential for the functioning of society". Several comments were also made that "essential for the functioning of society" is vague.

Many manufacturers requested that a risk-based approach to the specific PFAS compound be used, and if the specific compound poses no risk to human health or the environment, then the product should automatically be considered essential. This request included a broad definition or concept of "essential" that could be applied to many uses and industries. Some also argued that current uses of PFAS that are not essential could become essential in the future.

Several manufacturers answered this question as it pertains to their specific product with intentionally added PFAS and made a case for why their product is "essential for health, safety, or the functioning of society". Alignment with other states and the EPA was also requested.

The public health and environmental groups that are in opposition of currently unavoidable use determinations for products containing intentionally added PFAS seemed to generally agree with each other that defining criteria for "essential for health, safety, or the functioning of society" is not necessary. These comments stated that the commissioner should have authority to make these determinations, but if it must be defined, the definition should be narrow and not exempt entire product sectors from the 2032 ban.

If criteria for "essential for health, safety, or the functioning of society" must be defined, these comments proposed the following:

- Whether safer alternatives to PFAS are reasonably available;
- Whether the function of PFAS in the product is necessary for the product to work; and
- Whether the product itself is essential for the health, safety, or the functioning of society.

2) Should costs of PFAS alternatives be considered in the definition of "reasonably available"? What is a "reasonable" cost threshold? (60 answers)

Manufacturers and entities that are in support of currently unavoidable use determinations for products containing intentionally added PFAS generally agreed with each other that material and/or transition costs should be considered in the definition of "reasonably available" alternatives to PFAS.

A few manufacturers noted that PFAS such as F-gas, fluoropolymers, and fluoroelastomers are more expensive than alternative substances but are used because no alternatives offer the same functions. These manufacturers said that costs should not be considered, or if they are, they should not be the only consideration for "reasonably available" alternatives.

Additional cost considerations that were identified by manufacturers included lifecycle costs of implementing alternatives such as product redesign, testing, research and development, verification, cost of raw materials, retooling production facilities, decreased product functionality, increased risk of product failure, changes in production yield, worker training, disposal costs, and increased costs to consumers.

Some manufacturers identified in their comments that they would like to see a cost threshold established but acknowledged that setting a threshold may be difficult because of the variation among industries and in product end-use. Most stated that "reasonably available" alternatives should be at a comparable cost to PFAS, should be safer than PFAS, and should be able to function as a drop-in replacement.

An additional consideration for "reasonably available" alternatives that several manufacturers included in their comments was whether the alternative would be available in volumes required at the commercial scale.

The public and environmental groups that are in opposition to widespread currently unavoidable use determinations for products containing intentionally added PFAS seemed to generally agree with each other that costs should not be considered in the definition of "reasonably available" alternatives.

The comments from the public and environmental groups seemed to agree with each other that a cost threshold based on an absolute dollar mount should not be set. One comment pointed out that if costs

of alternatives are to be considered, then the costs of ongoing PFAS pollution remediation should also be considered.

Another comment also pointed out that "reasonably available" should not be construed to mean that an alternative needs to perform identically to the product containing PFAS.

The consensus among all of the comments received in response to this question was that the MPCA should consult further with economic experts.

3) Should unique considerations be made for small businesses with regards to economic feasibility? (39 answers)

Manufacturers and entities that are in support of currently unavoidable use determinations for products containing intentionally added PFAS generally agreed with each other that unique considerations should be made for small businesses with regards to economic feasibility of implementing PFAS replacements in products. Recommended considerations included requests that the MPCA offer grant or loan opportunities to assist small businesses with the costs of complying, exemptions to complying, and delayed compliance deadlines.

Some manufacturers, however, expressed the opinion that the same standards should apply to businesses of all sizes and unique considerations should not be made for small businesses.

The public and environmental groups that are in opposition of currently unavoidable use determinations for products containing intentionally added PFAS seemed to generally agree with each other that unique considerations should not be made for small businesses.

These comments also indicated that small businesses are the majority of businesses that would be affected by the PFAS bans, so any exceptions to them would allow continued widespread use of PFAS in products, and establishing unique considerations for small businesses may also lead to loopholes that allow large companies to spin off their PFAS-manufacturing units to exploit such exemptions.

4) What criteria should be used to determine the safety of potential PFAS alternatives? (60 answers)

Many of the manufacturers who answered this question took the opportunity to explain that no PFAS alternative exists for their product, any substitution would likely be more hazardous than the use of PFAS in the product, or any alternative would be unable to meet the same performance requirements provided by PFAS.

To avoid regrettable substitutions, recommended criteria to be considered when evaluating an alternative included risk-based assessments for environmental persistence, bioaccumulation, toxicity, and avoidance of substitutes that are known carcinogens, mutagens, or reproductive toxicants.

Many manufacturers also recommended that the sustainability of alternatives be considered through a lifecycle analysis including global warming potential, water use, emissions reduction, energy efficiency, product reliability, and volume of waste generated.

Many comments called for alignment with federal programs such as the EPA's Significant New Alternatives Program (SNAP, to reduce ozone depletion) or included resources for the MPCA to consider when determining the safety of potential PFAS alternatives.

The public and environmental groups that provided comments on this question indicated that the alternative should not be closely related to PFAS, should have reduced potential adverse impacts compared to PFAS, and by-products of the alternative should be considered. One of these comments also recommended that short and long-chain PFAS should be evaluated equally, stating that many long-

chain PFAS have been replaced with short-chain PFAS that are presumed to be safer because they are less prone to bioaccumulation. The commenter recommended that all PFAS be presumed dangerous until evaluated.

5) How long should PFAS currently unavoidable use determinations be good for? How should the length of the currently unavoidable use determination be decided. Should significant changes in available information about alternatives trigger a re-evaluation? (67 answers)

Responses to this line of questioning were varied. Manufacturers requested that CUU determinations last anywhere from five years to indefinitely with re-evaluations to occur either on a time-specific schedule or when an alternative is identified. Several manufacturers also presented concerns for products under warranty and how the 2032 ban and this rulemaking would affect those products and their spare replacement parts.

The public and environmental groups that provided comments on this question requested much shorter CUU exemptions ranging from one to ten years with regularly scheduled re-evaluations.

Both groups seemed to agree with each other that significant changes, including the discovery of alternatives, should trigger the re-evaluation of a CUU determination.

6) How should stakeholders request to have a PFAS use be considered for currently unavoidable use determination by the MPCA? Conversely, could stakeholders request a PFAS use not be determined to be currently unavoidable? What information should be submitted in support of such requests? (57 answers)

Manufacturers and members of the public and environmental groups all seemed to agree with each other that CUU requests should be made through a publicly transparent application process, and there should be alignment with what other state agencies have done.

Manufacturers requested that this portal be electronic, and that groups of manufacturers or trade groups should be able to submit the requests to reduce the number of applications received. It was also requested that an application should apply to multiple uses for one product.

Comments stated that confidential business information (CBI) and trade secrets be maintained through this application process, and requested clear guidance from the MPCA on how trade secrets can be asserted with a CUU application. Manufacturers also indicated that obtaining information from their upstream suppliers may be difficult if they assert that the use of PFAS in the product is CBI.

A few of the comments submitted by manufacturers requested that a technical advisory committee of industry experts, agency staff, scientists, health professionals, etc. be assembled to review the CUU applications.

Manufacturers did not support the option for stakeholders to request that a PFAS use be determined to be avoidable. A few such comments pointed out that this would only increase the workload for the agency to review application both for and against CUU determinations.

The public and environmental groups generally expressed that stakeholders should be able to apply for an “avoidable use” determination or apply for the denial or revocation of a CUU determination. These comments also recommended that each individual use of PFAS must be reviewed for essentiality, and whole product sectors should not be given a CUU determination.

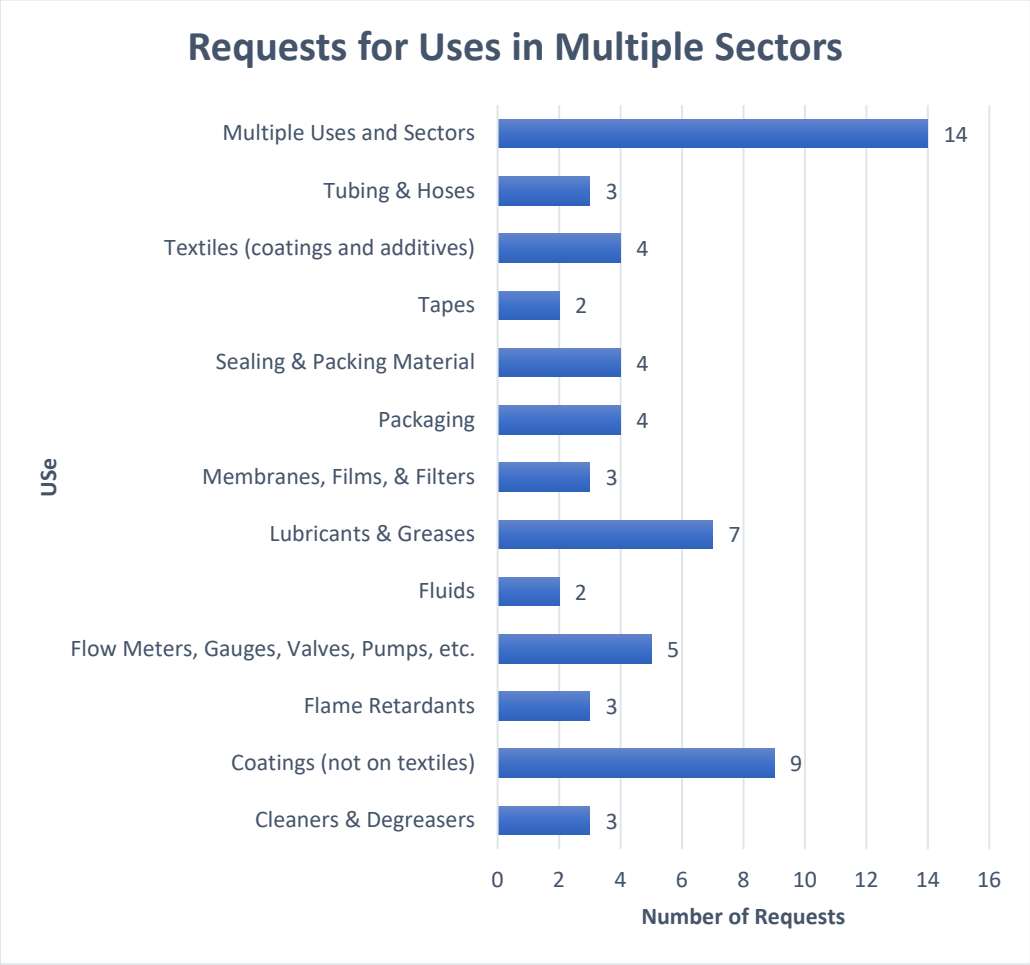
7) In order to get a sense of what type of and how many products may seek a currently unavoidable use determination, please share what uses and products you may submit a request for in the future and briefly why. There will be a future opportunity to present your full argument and supporting information for a possible currently unavoidable uses determination. (84 answers)

Figure 4. This chart depicts the number of comment submissions from different industry sectors. These commenters may seek future CUU determinations.

Notes to consider with this figure:

- Industry overlap. For example, products in the "Electronics" sector may ultimately be used in "Transportation" and "Semiconductor Manufacturing" sectors as well.
- This chart is by no means exhaustive, and only accounts for those PFAS in Product CUU requests where the manufacturer indicated that they would request a CUU designation for their product in a specific industry sector.
- Some sectors may be exempted by MN Stat 116.943 if they constitute an exemption in Subd. 8 (federal law governs the presence of PFAS, medical products, etc.).

Figure 5. This chart depicts the number of comment submissions for products with intentionally added PFAS that have widespread uses. These commenters may seek future CUU determinations.



Notes to consider with this figure:

- This chart accounts for those PFAS in Product CUU requests where the manufacturer indicated that their product has widespread use in multiple sectors.
- "Multiple Uses and Sectors" is a "catch all" category for vague or unspecific uses of PFAS in products, or requests for a CUU designation for entire classes of PFAS (such as fluoropolymers or fluoroelastomers).

8) Should MPCA make some initial currently unavoidable use determinations as part of this rulemaking using the proposed criteria? (61 answers)

Manufacturers agreed with each other and stated that the MPCA should make initial CUU determinations in this rulemaking, although one such comment cautioned that initial determinations should not be made prior to finalizing the proposed criteria.

The public and environmental groups were split on this question. Some stated that initial determinations should be made to establish avoidable uses of PFAS in products and to reduce costs to the agency if hearings or adjudications are held to review CUU applications. Others commented that initial determinations should not be made as this would only complicate the MPCA's rulemaking task and would undermine the purpose of the CUU application process.

9) Other questions or comments relating to defining currently unavoidable use criteria and the process MPCA uses to make currently unavoidable use determination.

Manufacturers mostly used this question to provide referenced reports and research, other state and federal regulations, proposed definitions, and posed some follow-up questions regarding the rulemaking.

The public and environmental groups that responded to this question used it to provide additional reasoning to support the reduction of PFAS in products.