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February 3, 2023

The Honorable Michal Ilana Freedhoff
Assistant Administrator
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Freedhoff:

The Chemours Company ("Chemours") appreciates the opportunity to provide comment on the Environmental Protection Agency's ("EPA") proposed rule titled "Changes to Reporting Requirements for Per-and Polyfluoroalkyl Substances and to Supplier Notifications for Chemicals of Special Concern; Community Right-to-Know Toxic Chemical Release Reporting." We support the goals of the Emergency Planning and Community Right-to-Know Act ("EPCRA") and the Toxics Release Inventory ("TRI") program to keep communities safe from emergency releases of chemicals that pose risks to neighboring communities.

Chemours is supportive of EPA's decision to not propose a definition for per- and polyfluoroalkyl substances ("PFAS") and efforts to adhere to the National Defense Authorization Act for Fiscal Year 2020 (NDAA) listing criteria. However, as outlined below, Chemours has several concerns with the proposal. First, we are concerned with the classification of the TRI PFAS chemicals as Chemicals of Special Concern and the immediate classification of future PFAS TRI listed chemicals. Second, Chemours is concerned with the removal of the de minimis exemption for all Chemicals of Special Concern, which expands beyond PFAS chemicals. Third, we are concerned with the removal of the de minimis exemption for supplier notifications. In addition, we believe that EPA underestimated the burdens and associated costs with the proposed regulatory requirements and should conduct a robust benefit cost analysis for the final rule.

I. PFAS definition

Chemours supports EPA refraining from proposing a PFAS structural definition in favor of adding specific PFAS by Chemical Abstracts Service Registration Number ("CASRN"). The regulatory approach of using a PFAS structural definition is problematic because EPA has not performed the risk assessments necessary to determine whether the regulatory approach is justified. That any future "PFAS" chemical would also be added without an individualized risk assessment makes it more so. This approach is not anchored in science.

EPA scientists should engage in a peer-reviewable, transparent, individualized, chemical–by-chemical review, or consider using a science-based alternative to break up this class of PFAS chemicals into smaller, more appropriate subgroupings to determine the appropriate treatment under the TRI reporting rules.

PFAS is a broad term that is used to refer to numerous chemicals that share certain commonalities. However, PFAS are not all the same and do not present the same level of risk when released in small quantities. EPA knows, and should acknowledge, that this rulemaking addresses nearly 200 separate and distinct chemicals rather than repeatedly referring to them all collectively as "PFAS."

II. Chemicals of Special Concern

1. EPA is misinterpreting the direction of Congress' NDAA for elimination of the de minimis exemption

EPA states that its rationale for adding PFAS to the list of Chemicals of Special Concern is based on the determination that "The NDAA set a 100-pound reporting threshold for PFAS added by sections 7321(b) and 7321(c), which indicates a concern for small quantities of such PFAS."[1] This interpretation is contradictory to Congress' approach for further regulatory constriction of PFAS under the Toxic Release Inventory (TRI) Program. In the NDAA, Congress specifically stated that the Agency shall determine whether revisions of the threshold are warranted.[2] Furthermore, in the NDAA, Congress made no designation that PFAS compounds are Chemicals of Special Concern. Had Congress intended EPA to so designate PFAS, they would have directed that action as part of the NDAA. Congress simply required the use of the TRI reporting system to include reporting of PFAS compounds at a threshold deemed appropriate, without regard to the compounds' specific persistent, bioaccumulative and toxic ("PBT") characteristics.

According to 42 U.S.C. Code 11023 (d)(C) a determination of whether a chemical is toxic, persistent, or bioaccumulates and causes a significant adverse effect on the environment shall be determined "based on generally accepted scientific principles or laboratory tests, or appropriately designed and conducted epidemiological or other population studies, available to the Administrator." It is presumed that Congress anticipated the Agency to conduct these reviews based on these scientific principles, which have not been completed.

The Agency's proposal to indiscriminately add all PFAS chemicals currently subject to TRI to the list of Chemicals of Special Concern is unprecedented, in terms of previous rulemaking, for the rationale of determining if a chemical should be defined as a PBT Chemical under EPCRA Section 313. The October 29, 1999 Final Rule for the Persistent Bioaccumulative Toxic (PBT) Chemicals; Lowering of Reporting Thresholds for Certain PBT Chemicals; Addition of Certain PBT Chemicals; Community Right-to-Know Toxic Chemical Reporting (FR Vol. 64, No 209, 58666 – 58753) clearly identified the criteria that would be used to determine if a chemical meets the definition of a PBT Chemical. For persistence, the Agency used half-life criteria for soil, sediment, water, and air. For bioaccumulation, the Agency used a bioaccumulation factor (BAF) and bioconcentration factor (BCF) numerical criterion. The 1999 final rule also evaluated each chemical against these criteria before making this determination. However, in this proposed rulemaking, the Agency is making a PBT determination for the entire group of PFAS TRI chemicals without a single reference to chemical assessments, scientific criteria, or other data to support the PBT designation. The EPA already knows not all PFAS are equal and do not pose the same risk criteria. In fact, per the CDC, the human health effects from exposure to low environmental levels of PFAS are uncertain and finding a measurable amount of PFAS in serum does not imply that the levels of PFAS cause an adverse health affect.[3] Furthermore, the Interstate Technology & Regulatory Council (ITRC) reports that both bioaccumulation and half-life criteria vary widely among PFAS chemicals.[4] EPA's intent to broadly include

[1] Proposed PFAS Rule, 74382, Section III A

[2] National Defense Authorization Act for Fiscal Year 2020, Pub. L. P.L. 116–92 § 7321(b)(2)(B)

[3] CDC PFAS Factsheet: https://www.cdc.gov/biomonitoring/PFAS_FactSheet.html

[4] ITRC (Interstate Technology & Regulatory Council). 2022. PFAS Technical and Regulatory Guidance Document and Fact Sheets PFAS-1. Washington, D.C.: Interstate Technology & Regulatory Council, PFAS Team. https://pfas-1.itrcweb.org/ BAF/BCF in plants and aquatic life: ITRC Chapter 5.5 and 5.6; half-life: ITRC Chapter 17.2.3

current TRI PFAS, as well as any future TRI PFAS, to the list of Chemicals of Special Concern, without providing underlying criteria for this designation is unprecedented and concerning.

2. EPA is erroneously, and without merit, treating all TRI PFAS, subject to TRI, the same

The Agency's proposed rule to identify all PFAS chemicals currently subject to TRI, in addition to future PFAS added to the TRI list, as PBT Chemicals does not identify the criteria used to make this determination, nor does it appear that scientific rationale was utilized for this determination. Also, the Agency is assuming all PFAS to be equal for persistence and bioaccumulation capabilities. EPA should make a specific determination for each PFAS chemical that is currently subject to TRI, as well as all future PFAS chemicals that will be added to TRI, which should be evaluated on a chemical-by-chemical basis and be measured based on a risk-based, scientific, and numerical criterion consistent with EPCRA Section 313.

EPA's own website titled "Our Current Understanding of the Human Health and Environmental Risks of PFAS" includes the following statements, which reveals the Agency's decision to add all TRI regulated PFAS to the list of Chemicals of Special Concern as a premature attempt to increase regulations on substances the Agency does not fully understand.[5]

- "Current scientific research suggests that exposure to high levels of certain PFAS may lead to adverse health outcomes. However, research is still ongoing to determine how different levels of exposure to different PFAS can lead to a variety of health effects."

- "Research is also underway to better understand the health effects associated with low levels of exposure to PFAS over long periods of time."

- "Current peer-reviewed scientific studies have shown that exposure to certain levels of PFAS may lead to…."

- "Scientists at EPA, in other federal agencies, and in academia and industry are continuing to conduct and review the growing body of research about PFAS. However, health effects associated with exposure to PFAS are difficult to specify for many reasons."

EPA is capriciously treating PFAS as a chemical class, similar to how dioxin and dioxin-like compounds are managed under TRI. However, dioxins and dioxin-like compounds "have similar chemical structure, similar physical-chemical properties, and invoke a common battery of toxic responses."[6] Additionally, dioxins and dioxin-like compounds, as well as other chemical classes of PBT Chemicals on the TRI list, were initially evaluated on a chemical-by-chemical basis before the decision was made to report them as a chemical category. However only a small subsection of all dioxin and dioxin like compounds are required to be evaluated for TRI reporting.[7] The Agency has no basis for concluding that the 180 PFAS currently on the TRI List or those that will be added to the TRI List in the future concurrently pose a significant adverse effect on the environment in small quantities. The Agency has not clearly defined its regulatory authority to automatically add all present and future TRI PFAS to the list of Chemicals of Special Concern without a thorough scientific evaluation of each PFAS chemical to determine its potential to meet the criteria of a true PBT chemical.

[5] https://www.epa.gov/pfas/our-current-understanding-human-health-and-environmental-risks-pfas

[6] EPA, Guidance for Reporting Toxic Chemicals within the Dioxin and Dioxin-like Compounds Category (Dec. 2020), available at https://www.epa.gov/sites/default/files/documents/2000dioxinguidance.pdf.

[7] Persistent Bioaccumulative Toxic (PBT) Chemicals; Lowering of Reporting Thresholds for Certain PBT Chemicals; Addition of Certain PBT Chemicals; Community Right-to-Know Toxic Chemical Reporting (Final rule October 29, 1999, 64 FR 58714)

III. De minimis Exemption

1. The EPA should continue to leave in place the de minimis exemption values already established for Chemicals of Special Concern.

The EPA has previously and adequately established de minimis exemption values for a broad range of Chemicals of Special Concern. These de minimis exemption values were the product of individual evaluation and assessment for each chemical or class of chemicals represented in the most recent list of Chemicals of Special Concern. Removal of the de minimis values goes directly against the original scientific reasoning of the EPA to establish individual and differentiated de minimis exemption values as each chemical or class of chemicals can be differentiated in chemical, toxicological and bio-persistent properties. Taking a uniform approach to the regulation of chemicals or classes of chemicals that are differentiated from one another does not provide additional safety or control measures for any given substance if no additional safety or control measures have been scientifically established for a specific chemical or class of chemicals.

The de minimis exemption values were established to address low concentrations of Chemicals of Special Concern found in mixtures. Before removing the de minimis exemption values, the EPA should evaluate each chemical or class of chemicals represented in the most recent list of Chemicals of Special Concern to determine if the currently established de minimis exemption value should be removed due to any scientifically established safety or control measures not currently being addressed for that specific chemical or class of chemicals as part of a mixture. This approach would be consistent regarding the concentration of the specific chemical in a given mixture and not the quantity of the pure substance in and of itself. This approach would recognize that as small components in a larger mixture these materials may require fewer safety or control measures than would be required for the pure substance.

In many cases the Chemical of Special Concern is an unintentional/inadvertent part of a product or is the result of an unavoidable contamination of the product. In these cases, the concentration of the Chemical of Special Concern can vary within manufacturing lots or even be below available analytical detection limits due to process or manufacturing variations for a specific product lot. The currently established de minimis exemption values allow for this product variation without adding additional and unnecessary reporting requirements for each specific product lot. The requirement to report accurate concentrations below the currently established de minimis exemption value would require significantly more testing and updating of reporting information to establish an accurate representation of a specific product lot, while providing no corresponding increase in safety. Alternatively, this could also result in the over estimation of concentrations on reporting information to avoid the need to continually update reporting data which may not result in an accurate conveyance of information for a given product.

2. The EPA should adequately consider the significantly increased burden to chemical manufacturers if the de minimis exemption for supplier notifications is removed. Furthermore, the added complications associated with this change would create additional complexity and confusion as an unintended consequence.

Reporting requirements that do not have de minimis exemption values would create complexity regarding testing requirements and low concentration values that are based on available analytical techniques. Without the currently established de minimis exemption values and without guidance from the EPA on which analytical technique is to be used for a specific chemical or class of chemicals represented in the most recent list of Chemicals of Special Concern, the EPA would be creating a potential inconsistency in the required reporting associated with supplier notifications. Since “zero” or “non-existence” is unattainable considering the limitations of available analytical techniques and the potential for product contamination, the proposal would result in chemical manufacturers reporting data and providing supplier notifications unnecessarily. There is also

potential that the lowest reporting value for a specific chemical or class of chemicals would be set by the sensitivity of the analytical technique employed and not by the actual concentration in the product as provided which would result in inconsistent reporting across the broader chemical industry.

In the absence of the de minimis exemption for supplier notifications, chemical manufacturers would be obligated to do additional testing on their products for any and all Chemicals of Special Concern. The additional testing burden would be significant to most chemical manufactures and would add additional burden to currently available testing facilities. Considering the large amount of testing that could be required with the removal of the de minimis exemption values, the testing facilities currently available may not be sufficient to provide all chemical manufacturers the data required to meet the proposed reporting requirements.

Removal of the de minimis exemption for supplier notifications would create confusion and contradict already established required reporting mechanisms. For example, a Safety Data Sheet (SDS) may have an established reporting threshold for a specific toxic chemical which may be in-line with the currently established de minimis exemption values. Removal of the de minimis exemption for supplier notifications would therefore create unneeded confusion as to the differentiated reporting requirements for the SDS and for the supplier notification without providing any additional safety or control information above what is already available on the SDS or as currently required for reporting above the de minimis exemption values. EPA should consider working with other agencies (i.e. OSHA) to insure alignment across all reporting mechanisms to minimize complexity and confusion for reporting.

3. The EPA should fully assess the significant increase in new supplier reporting that would be required of chemical manufacturers if the de minimis exemption for supplier notifications is removed.

The removal of the de minimis exemption for supplier notifications would have significant impact on chemical manufacturers across the entire industry. Reporting that would be required for products that have Chemicals of Special Concern below the current de minimis exemption, products that have Chemicals of Special Concern that are unintentional/inadvertent, and products that have Chemicals of Special Concern due to unavoidable contamination would all require supplier notifications. The amount of new reporting information that would be gathered and communicated would result in the creation of a large number of new supplier notifications. This would be overwhelming not only to the chemical manufacturer required to provide these new supplier notifications, but also to those receiving these new supplier notifications who in turn would be required to review, document, and update their own information accordingly. In conjunction with the significant increase in new reporting information available, those receiving the new supplier notifications would have to discern between what requires new and additional safety or control measures or in many cases what does not. Overall, this would lessen the utility of the current supplier notification system and would diminish any current aspect of safety or control measures that it currently provides.

IV. Reporting Burden Estimates

1. The Agency's expectation that elimination of the de minimis exemption will result in a more complete picture of releases and other waste management quantities for PFAS is unfounded.

As mentioned above, the lack of the de minimis exemption will substantially increase the burden to industry by requiring manufacturers to consider a wider universe of substances than what is expected for their processes. For instance, there may be PFAS impurities or even anthropogenic background levels at part-per-billion or lower levels that will need to be evaluated for inclusion into threshold calculations. This superfluous level of evaluation will increase cost and time for a result that is more than likely not going to yield a meaningful outcome. As an example, it would take almost 12 billion gallons of process water with a 1 ppb concentration of

a PFAS chemical to reach the 100 lb. threshold. Additionally, every company that receives a notice under the newly proposed supplier notification process will need to conduct this same level of analysis for no benefit. This will also apply to other anthropogenic background PBTs such as lead, mercury, dioxins, and PCBs.

The EPA approved analytical methods for PFAS chemicals are extremely limited, especially when very low detection levels are required. These targeted methods can reliably detect only about 1 percent of PFAS chemicals and are limited only to water matrices.[8] Out of the three approved analytical methods, only 9 out of the 180 TRI PFAS chemicals can be accurately analyzed for, but only in a sample matrix of water. EPA's draft Method 1633 currently remains under validation studies, with finalization anticipated in 2023. This method is supposed to cover multiple matrices such as wastewater, soil, biosolids, sediment, and landfill leachate. However, the method is limited to a total of 40 PFAS chemicals, out of which only 13 are on the TRI list.[9] Therefore, EPA is shifting the burden to the regulated community to make threshold determinations for trace quantities of these other TRI PFAS chemicals with no identifiable analytical methods to use. EPA has failed to accurately assess the additional burden on regulated facilities as they try to determine the quantity of TRI PFAS chemicals at their sites and how these amounts will impact their reporting requirements.

EPA does not require facilities to perform analysis to determine thresholds or releases.[10] However, it will be difficult to simply estimate PFAS levels that are expected to be in part per billion (ppb) or part per trillion (ppt) concentrations. These estimations will potentially lead to exaggerated release or threshold determinations and result in erroneous reporting. Erroneous reporting is not beneficial to the Agency or to the general public. It will dilute the intent of the Toxic Release Inventory Program and cause undue public concern. Additionally, it will only cause further burden to the regulated community and overwhelm the limited number of testing facilities.

The Agency has many other proposed reporting mechanisms, initiatives, and tools available to address PFAS risks to human health and the environment.[11] The additional burden that will be caused by eliminating the de minimis exemption for TRI is not expected to positively affect the overall representation of PFAS exposure to communities.

- Initiative to increase Industrial Wastewater permitting mechanisms with intent to reduce PFAS discharges to waterways.[12]

- Issuance of drinking water health advisories and grants for addressing PFAS in drinking water.[13]

- Three Clean Water Act actions addressing PFAS

- TSCA 8(a)(7) rulemaking which will require all manufacturers (including importers) of PFAS, in any year since 2011, to report information related to chemical identity, categories of use, volumes manufactured and processed, byproducts, environmental and health effects, worker exposure, and disposal.[14]

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[8] United States Government Accountability Office; Technology Assessment, Persistent Chemicals, Technologies for PFAS Assessment, Detection, and Treatment. GAO-22-105088, Persistent Chemicals: Technologies for PFAS Assessment, Detection, and Treatment

[9] CWA Analytical Method for PFAS. https://www.epa.gov/cwa-methods/cwa-analytical-methods-and-polyfluorinated-alkyl-substances-pfas

[10] 42 U.S.C, Chapter 116, Subchapter II, 11023(g)(2)

[11] EPA Actions to Address PFAS https://www.epa.gov/pfas/epa-actions-address-pfas

[12] Addressing PFAS Discharges in EPA-Issued NPDES Permits and Expectations Where EPA is the Pretreatment Control Authority https://www.epa.gov/system/files/documents/2022-04/npdes_pfas-memo.pdf

[13] Drinking Water Health Advisories https://www.epa.gov/sdwa/drinking-water-health-advisories-has and Building the Capacity of Drinking Water Systemshttps://www.epa.gov/dwcapacity/emerging-contaminants-ec-small-or- disadvantaged-communities-grant-sdc

[14] See EPA, TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances, 86 Fed. Reg. 33,926 (June 28, 2021)

V. Conclusion

EPA should take more of a science-based approach in considering PFAS chemicals as TRI Chemicals of Special Concern instead of indiscriminately adding all PFAS chemicals currently subject to TRI to that list. Since PFAS chemicals are being added to the TRI program by a listing criterion from the 2020 NDAA, EPA should conduct chemical assessments to support the PBT designation. EPA should maintain the status quo for de minimis values for Chemicals of Special Concern and maintain the exemption for supplier notifications, which if removed, would result in erroneous reporting. In addition, EPA underestimated the burden facilities will be subjected to by eliminating the de minimis exemption from all TRI PFAS and adding them to the list of Chemicals of Special Concern. Therefore, EPA should conduct an in-depth benefit costs analysis for the final rule and include the associated burdens and costs to industry with the proposed removal of the de minimis exemption for the supplier notification while considering the practical utility of the requirement.

Chemours appreciates the opportunity to comment and looks forward to engaging with EPA as it considers these comments.

Sincerely,
Danielle Jones
Regulatory Affairs Director