

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Comments of

**Safer Chemicals Healthy Families * Alaska Community Action on Toxics *
Asbestos Disease Awareness Organization (ADAO) * Biomonitoring Resource
Center, Commonweal * Breast Cancer Prevention Partners * Center for
Environmental Health * Clean and Healthy New York * Clean Production Action
* Clean Water Action - New Jersey * Clean Water Action/Clean Water Fund *
Earthjustice * Ecology Center * Environmental Health Strategy Center *
Environmental Working Group * GreenCAPE * Headwater Education Project *
League of Conservation Voters * Learning Disabilities Association of America -
Healthy Children Project * Natural Resources Defense Council * NC Conservation
Network * Oregon Environmental Council * Science and Environmental Health
Network * Sierra Club * Toxics Action Center * Toxic-Free Future * UPSTREAM *
Vermont Conservation Voters * Vermont Public Interest Research Group *
Women for a Healthy Environment * Women's Voices for the Earth
* Zero Waste Washington ***
**on EPA's Supplemental Significant New Use Proposal for
Long-Chain Perfluoroalkyl Carboxylate and Perfluoroalkyl Sulfonate Chemical
Substances
under Section 5(a)(2) of TSCA**

Submitted via Regulations.gov (April 17, 2020)
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Safer Chemicals Healthy Families (SCHF), Earthjustice, Natural Resource Defense Council, Environmental Health Strategy Center Alaska Community Action on Toxics, Asbestos Disease Awareness Organization (ADAO), Biomonitoring Resource Center, Commonweal, Breast Cancer Prevention Partners, Center for Environmental Health, Clean and Healthy New York, Clean Production Action, Clean Water Action - New Jersey, Clean Water Action/Clean Water Fund, Ecology Center, Environmental Working Group, GreenCAPE, Headwater Education Project, League of Conservation Voters, Learning Disabilities Association of America - Healthy Children Project, NC Conservation Network, Oregon Environmental Council, Science and Environmental Health Network, Sierra Club, Toxic-Free Future, Toxics Action Center, UPSTREAM, Vermont Conservation Voters, Vermont Public Interest Research Group, Women for a Healthy Environment, Women's Voices for the Earth, and Zero Waste Washington submit these comments on the Environmental Protection Agency's (EPA) supplemental proposed significant new use rule (SNUR) for long-chain perfluoroalkyl carboxylate and perfluoroalkyl sulfonate chemical substances (LCPFACs) under section 5(a)(2) of the Toxic Substances Control Act (TSCA).¹ Our organizations are committed to assuring the safety of chemicals used in our homes, workplaces and the many products to

¹ 85 Federal Register 12479 (March 3, 2020).

which our families and children are exposed each day. We took a leadership role during the TSCA legislative process, advocating the most protective and effective legislation possible to reduce the risks of toxic chemicals in use today.

After a delay of 5 years since the LCPFAC SNUR was first proposed² and only after Congress directed it to take final action by June 20 of this year, EPA has now supplemented its 2015 proposal and seeks further comment. However, the supplemental proposal is a step backward from the earlier proposal because it unnecessarily narrows the scope of new LCPFAC-containing articles that require SNUR notification and review before they can be imported and placed in US commerce. In retreating from the 2015 proposal, EPA points to provisions of the 2016 TSCA amendments that clarify its authority to apply SNUR requirements to articles. However, EPA applies these provisions more restrictively than the law requires and Congress intended, defeating its own goal of achieving maximum reduction of the presence of harmful LCPFACs – a subset of the larger class of per- and polyfluoroalkyl substances (PFAS) -- in people and the environment.

In these comments, we urge EPA to return to the broad scope of its 2015 SNUR proposal and apply SNUR requirements to all LCPFAC-containing articles. As demonstrated in the comments:

- As EPA recognizes, the SNUR is intended to assure that, once eliminated from manufacture and commercial use, LCPFACs are not reintroduced, which would “significantly increase the magnitude and duration of exposure to humans and the environment to these chemical substances.” Reducing exposure to these substances is critical because, according to EPA, they are “found world-wide in the environment, wildlife, and humans, . . . are bioaccumulative in wildlife and humans, and are persistent in the environment” and “are toxic” to people and wildlife. To address these concerns, the SNUR must broadly encompass all discontinued and potential new LCPFAC uses that could result in human or environmental exposure.
- EPA’s 2015 proposal covered all articles containing LCPFACs that were no longer being manufactured or imported based on a concern that these chemicals may be released from articles during use, distribution in commerce, and disposal. In finding that exempting articles from the SNUR would defeat the goal of eliminating exposure to LCPFACs, EPA stressed that “any new use of LCPFAC chemical substances as part of articles would increase the duration and magnitude of human and environmental exposure to the substances.”
- Section 5(a)(5) of TSCA as amended clarifies the findings EPA must make when applying SNURs to articles. This provision does not require a formal risk or exposure assessment for articles but simply calls for EPA to make a finding that there is a “reasonable potential for exposure” and that this potential “justifies notification.” Evidence demonstrating actual release of the SNUR chemical from the article is thus not required. Rather, a “reasonable basis” for believing that release may occur and people or the environment may be exposed is sufficient. Moreover, EPA need not demonstrate a potential for exposure for each type of article containing the SNUR chemical but can make this demonstration for the “category of articles” to which the SNUR applies. In determining whether the potential for exposure from an article “justifies notification,” EPA should be guided by the level of concern presented by exposure to the SNUR

² 80 Federal Register 2885 (January 21, 2015).

chemical – a particularly important consideration given the uniquely serious concerns associated with LCPFACs.

- Several articles have historically contained LCPFACs as part of surface coatings. As EPA notes, “[t]he release of LCPFAC chemical substances from coatings in articles has been well-documented in the scientific literature” and the Agency “has reason to anticipate that importing articles that have certain LCPFAC chemical substances as part of a surface coating would create the potential for exposure to these LCPFAC chemical substances, and that EPA should have an opportunity to review the intended use before such use could occur.”
- While we agree that there is ample evidence to justify imposing SNUR obligations on articles with LCPFAC-containing surface coatings under section 5(a)(5), we disagree that other types of articles containing these chemicals should be exempt from the SNUR. The supporting materials for the 2015 proposal document – and our research confirms – that PFAS substances (including LCPFACs) are present in a wide range of articles for purposes other than coating surfaces. Nowhere in its proposal does EPA discuss other uses of LCPFACs in articles or explain why they should be exempt from the SNUR under section 5(a)(5). Plainly, there are several scenarios under which potential exposure to LCPFACs from these articles is plausible and reasonably foreseeable. For example, the articles may release LCPFACs during end-use, when disassembled and broken apart during recycling, when reintroduced into manufacturing operations following recycling, when incinerated, and as a result of weathering and aging during disposal in landfills or impoundments. There is considerable data showing that other chemicals with properties like those of LCPFACs are released from articles during use and these data provide evidence of the “reasonable potential for exposure” required by TSCA. In light of the compelling need to eliminate further exposure to LCPFACs following the 2015 voluntary phaseout of manufacture and use, this potential for exposure “justifies notification” under the SNUR before any articles containing these chemicals are imported into the United States.
- We strongly disagree that, as suggested in the supplemental proposal, EPA should set a threshold level of release below which it will presume that there is no reasonable potential for exposure to SNUR chemicals contained in articles. This approach presupposes that it is possible to identify a level of release that can be confidently deemed to lack any potential to cause harm. But the goal of the SNUR is to identify in advance new uses that may increase exposure so that EPA can review them and judge whether their contribution to exposure raises health or environmental concerns that warrant restriction. To exempt a new use from the SNUR based on an upfront “no risk” determination would be to turn the precautionary purposes of TSCA’s SNUR provisions on their head: the very reason for the SNUR is that the Agency will not be in a position to make judgements about risk and exposure until it receives a detailed notice describing the new use. An arbitrary threshold for SNUR notification would be particularly indefensible for LCPFACs, which bioaccumulate in people and wildlife, are ubiquitous in the environment, and cause adverse effects at very low concentrations.
- In previous SNURs for long-chain perfluoroalkyl sulfonates, EPA exempted certain ongoing uses of these substances, including use in carpets. However, the 2015 proposal indicates that the manufacture (including import) and processing of these sulfonated substances for inclusion in carpets has been discontinued and they should be subject to SNUR requirements because the potential exists for exposure during carpet use. The 2020 supplemental proposal does not

address the status of these proposed provisions. We believe that, since carpets are a significant source of exposure to PFAS, including by children, their inclusion in EPA's final rule is essential.

- According to the preamble, unlike the 2015 proposal, the supplemental proposal would not apply to processors. There is no basis in TSCA for withholding the application of SNUR requirements to persons who process SNUR chemicals for significant new uses; these persons are required by law to submit SNUNs. Moreover, should an LCPFAC be manufactured or imported in violation of the SNUR and sold to processors, EPA would lack enforcement authority to prevent potentially harmful processing activities. For these reasons, the final rule should apply to processors.
- Recent research and analysis indicate that short-chain PFAS have characteristics that raise serious concern and there is no basis for treating them as less harmful than PFOS, PFOA and other long-chain PFAS. However, the PFAS SNURs proposed by EPA to date have only applied to long-chain molecules. Thus, there are no SNURs that apply to short-chain PFAS and impose restrictions on the reintroduction of substances in this category that are no longer in commercial production or are planned to be manufactured for new uses. Given EPA's observation that half of the PFAS listed on the Inventory are not now being manufactured for commercial purposes, the real-world benefits of such SNUR requirements would be substantial and EPA should place a high priority on putting them in place.

I. The SNUR Is a Critical Tool for Barring Future Commercial Use of Discontinued LCPFACs based on Their Well-documented Persistence, Bioaccumulative Potential, High Mobility, Widespread Exposure, and Toxicity

TSCA section 5(a)(2) (15 U.S.C. 2604(a)(2)) authorizes EPA to determine that a use of a chemical substance is a "significant new use" after considering all relevant factors, including:

- (1) The projected volume of manufacturing and processing of a chemical substance;
- (2) The extent to which a use changes the type or form of exposure of human beings or the environment to a chemical substance;
- (3) The extent to which a use increases the duration of exposure of human beings or the environment to a chemical substance; and
- (4) The reasonably anticipated manner and methods of manufacturing, processing, distribution in commerce, and disposal of a chemical substance.

These factors focus on the potential for increased exposure as a result of potential changes in the circumstances under which a chemical is manufactured, used, and disposed of. EPA has repeatedly emphasized that SNURs are not "based on an extensive evaluation of the hazard, exposure, or potential risk associated with [a new] use" of a chemical. 85 Fed. Reg. 12484. Rather, the purpose of the SNUR is a simple one – to assure that companies do not make changes in the use of chemicals of concern that could increase exposure and risk without notifying EPA and enabling the Agency to ban or restrict manufacture (including import) if the substance could be harmful or EPA lacks information sufficient to determine whether it may present unreasonable risk.

EPA has previously used SNURs to assure that long-chain PFAS substances that have been withdrawn from manufacture and use cannot reenter commerce unless EPA is notified in advance and determines that these substances are not likely to present an unreasonable risk of injury to health or the

environment.³ These safeguards are essential as concern has increased about the harmful effects of PFAS as a class and a growing number of class members have been removed from commercial production and use because of demonstrated adverse effects. SNURs, along with other measures, can play a critical role in reducing exposure to PFAS and transitioning industry to safer non-PFAS substitutes.

The findings in EPA's 2015 and 2020 proposals provide a strong case for eliminating the use of and exposure to LCPFACs. As explained by EPA, "[t]his proposed SNUR is intended to follow and codify an existing voluntary industry commitment to phase out LCPFAC chemical substances by the end of 2015."⁴ The industry commitment was an outgrowth of the EPA 2006 PFOA Stewardship Program, whose goal was "reducing facility emissions and product content of LCPFAC chemical substances on a global basis by 95%, no later than 2010, and to eliminate emissions and product content of these chemical substances by 2015."⁵

The rationale for eliminating the identified LCPFACs was, and remains, concern about PFOA. According to the 2020 proposal:⁶

"To date, PFOA has been linked to a number of health effects, including thyroid disease and impacts on reproductive function (Refs. 5 and 6). PFOA and its salts, which are considered LCPFAC chemical substances, have been the primary focus of studies related to LCPFAC class of chemical substances. PFOA is persistent, widely present in humans and the environment, has a half-life in humans of 2.3–3.8 years, and can cause adverse effects in laboratory animals, including cancer and developmental and systemic toxicity (Refs. 3, 7, 8, 9, and 10). Human epidemiology data report associations between PFOA exposure and high cholesterol, increased liver enzymes, decreased vaccination response, thyroid disorders, pregnancy-induced hypertension and preeclampsia and cancer (testicular and kidney)."

According to EPA,⁷ "PFOA precursors, chemicals which degrade or may degrade to PFOA, are also present worldwide in humans and the environment and, in some cases, might be present at higher concentrations than PFOA and be more toxic." Similarly, "PFOA can also be produced unintentionally by the degradation of some fluorotelomers, which are not manufactured using PFOA but could degrade to PFOA."⁸ Thus, fluorotelomer monomers and fluorotelomer-based polymers (FTBP) are included in EPA's LCPFAC category definition as potential LCPFAC precursors and are subject to the proposed SNUR.⁹

Because some LCPFACs are PFOA precursors and others can degrade to PFOA, LCPFACs as a group raise significant health and environmental concerns. As described by EPA:¹⁰

³ Perfluoroalkyl Sulfonates; Significant New Use Rule, 67 Fed. Reg. 72854 (December 9, 2002); Perfluoroalkyl Sulfonates; Significant New Use Rule. Final Rule, 72 Fed. Reg. 57222 (October 9, 2007); Significant New Use Rules: Perfluoroalkyl Sulfonates and Long-Chain Perfluoroalkyl Carboxylate Chemical Substances, 78 Federal Register. 62443 (October 22, 2013).

⁴ 80 Fed. Reg. 2886

⁵ 80 Fed. Reg. 2889

⁶ 85 Fed. Reg. 12484

⁷ 80 Fed. Reg. 2889

⁸ Id at 2888

⁹ Note, however, that the 2015 proposal does not apply to import of fluoropolymer dispersions and emulsions, and fluoropolymers as part of articles, containing PFOA or its salts because EPA believes these are ongoing uses. Id. at 2891.

¹⁰ Id at 2890.

“LCPFAC . . . chemical substances are found world-wide in the environment, wildlife, and humans. They are bioaccumulative in wildlife and humans, and are persistent in the environment. They are toxic to laboratory animals, producing reproductive, developmental, and systemic effects in laboratory tests. The exact sources and pathways by which these chemicals move into and through the environment and allow humans and wildlife to become exposed are not fully understood, but are likely to include releases from manufacturing of the chemicals, processing of these chemicals into products, and aging, wear, and disposal of products containing them.”

As EPA acknowledges, the SNUR is intended to assure that, once eliminated from manufacture and commercial use, LCPFACs are not reintroduced, which would “significantly increase the magnitude and duration of exposure to humans and the environment to these chemical substances.”¹¹ Because of the SNUR, “EPA expects the presence of LCPFAC substances in humans and the environment to decline over time as has been observed in the past when production and use of a persistent chemical has ceased.”

Given this rationale, it is critical that the SNUR broadly encompass all LCPFAC uses that could result in human or environmental exposure and that EPA use its full authority under TSCA sections 5(e) and 5(f) to prohibit these uses should a manufacturer submit a Significant New Use Notice (SNUN) seeking to resume manufacture or processing.

II. All LCPFAC-Containing Articles Are a Potential Source of Exposure and Release and the SNUR Should Bar Their Importation and Distribution in Commerce

A. EPA’s 2015 SNUR Proposal Applies to all Articles Containing LCPFACs

40 CFR § 721.45(f) exempts articles from SNUR requirements but allows EPA to disallow the exemption on a case by case basis. The basis for the exemption is “an assumption that people and the environment will not be exposed to substances in articles” (85 Fed. Reg. 12485) but this assumption is not correct in many cases: some articles can release component chemical substances during distribution, use, or disposal, exposing people and the environment to these substances. In these cases, the article exemption would create a loophole in SNUR requirements, resulting in increases in risk without the safeguards of advance notification, review, and possible restriction that the SNUR is intended to provide.

It is well-known that LCPFACs contained in articles can be released during processing, use, and disposal. Thus, EPA’s 2015 SNUR proposal determined that the article exemption should not apply: “In this case, EPA believes that the assumption underpinning this exemption, that people and the environment will generally not be exposed to chemical substances as part of articles, does not hold true.”¹² As EPA explained:

“EPA’s Office of Research and Development has conducted research demonstrating that perfluorinated chemicals contained in articles of commerce can be released from those articles. For instance, one study observed the removal of perfluorinated chemicals from treated carpet as a result of carpet cleaning and showed that perfluorinated chemicals contained in treated carpet could be released to the environment (Ref. 33). A second study indicated that

¹¹ Id.

¹² Id. at 2891

perfluorinated chemicals could be released from treated medical garments with water alone (Ref. 34).”

EPA further emphasized that:¹³

“The exact sources and pathways by which these chemicals move into and through the environment and allow humans and wildlife to become exposed are not fully understood, but are likely to include releases from manufacturing of the chemicals, processing of these chemicals into products, and aging, wear, and disposal of products containing them”

EPA then found that “LCPFAC chemical substances may be similarly released from related articles” and underscored that exempting articles from the SNUR would defeat the goal of eliminating exposure to LCPFACs: “EPA believes any new use of LCPFAC chemical substances as part of articles would increase the duration and magnitude of human and environmental exposure to the substances.”¹⁴

The Economic Analysis (EA) for the 2015 proposal indicates that “LCPFACs are used in a wide variety of industries and may be found in a wide variety of products, including textiles, electronics, and wires and cables, which may be imported into the United States as finished articles.”¹⁵ The EA provides several examples of applications for LCPFACs, including incorporation in numerous articles: ¹⁶

Aerospace

- o Wire insulation
- o Aircraft cabin interiors (films laminated to hardboard, paper, vinyl, polystyrene, polyurethane, and other substrates)
- o Heat-shrinkable tubing made from PVDF resin forms “solder sleeves”

Automotive

- o Engine oil seals (rotating and reciprocating types)
- o Tubing

Building/ Construction

- o Exterior siding on industrial and residential buildings (PVF films are laminated to sheets of metal to make the siding)

Coatings

- o Coating for window frames
- o Linings for hoses
- o Antireflective coatings
- o Paper coatings for food package
- o Wax (floor and ski)

¹³ Id. at 2890.

¹⁴ Id. at 2891

¹⁵ EPA, Economic Analysis of the Significant New Use Rule for Long-Chain Perfluoroalkyl Carboxylate Chemical Substances and Perfluoroalkyl Sulfonate Chemical Substances (EPA DOCKET EPA-HQ-OPPT-2013-0225), November 20, 2014, at 2-11.

¹⁶ Id. at 2-6. See also Table 2-4 listing examples of industry that may import LCPFAC-containing articles.

Electrical/ Electronics

- o Insulated hookup wire
- o Molded electrical parts
- o Electrical tape

Lubricants

- o Lubricant additives
- o Magnetic recording surfaces using perfluoropolyether lubricants, partially fluorinated diesters, and amine polyesters

Mechanical

- o Piston rings
- o Mechanical tapes
- o Conveyor belts

Military

- o Binders for military flares

Semiconductor

- o Chemical handling equipment
- o Engineering coatings used semiconductor manufacture

Solar

- o Film for solar collector windows

Textiles

- o Clothing
- o Carpets
- o Architectural fabric (dome construction)

Wire and Cable

- o Insulating heater cables and automotive wiring
- o Control and instrumentation wire for utilities
- o Jacketing signal, control, communications, and power wiring for mass transport systems

Under the SNUR as proposed in 2015, these and other articles containing LCPFACs would be subject to notification requirements if no longer imported and distributed in commerce in the US as of 2015.

B. The 2020 Supplemental SNUR Proposal Unjustifiably Narrows the Range of Imported Articles Covered by the SNUR

The March 3, 2020 proposal revisits the scope of SNUR requirements for imported articles in light of the 2016 Frank R. Lautenberg Chemical Safety for the 21st Century Act (LCSA) amending TSCA. EPA concludes that these requirements should apply to articles containing LCPFACs as surface coatings but it fails to address articles in which these substances are present for other purposes and offers no basis for excluding them from the SNUR. While we agree that there is ample evidence to justify imposing SNUR obligations on articles with surface coatings containing LCPFACs, we disagree that other types of articles containing these chemicals should be exempt from the SNUR.

1. LCSA Provisions on Applying SNURs to Articles

LCSA clarifies the findings EPA must make when applying SNURs to articles. Section 5(a)(5) of TSCA as amended states that –

“The Administrator may require notification under this section for the import or processing of a chemical substance as part of an article or category of articles . . . if the Administrator makes an affirmative finding in a rule under paragraph (2) that the reasonable potential for exposure to the chemical substance through the article or category of articles subject to the rule justifies notification.” Id. (emphasis added).

This provision does not require a formal risk or exposure assessment for articles but simply calls for EPA to make a finding that there is a “reasonable potential for exposure” and that this potential “justifies notification.” Evidence demonstrating actual release of the SNUR chemical from the article is thus not required. Rather, a “reasonable basis” for believing that release may occur, and people or the environment may be exposed, is sufficient. Moreover, EPA need not demonstrate a potential for exposure for each type of article containing the SNUR chemical but can make this demonstration for the “category of articles” to which the SNUR applies.

LCSA’s legislative history underscores that section 5(a)(5) will be satisfied where EPA has a reasonable basis to conclude that release of the substance from the covered articles is a plausible pathway of exposure. According to the detailed statement and analysis of the LCSA’s Democratic Senate sponsors:¹⁷

“This language clarifies that potential exposure is a relevant factor in applying SNURs to articles. Exposure is a relevant factor in identifying other significant new uses of a chemical substance as well. It is not intended to require EPA to conduct an exposure assessment or provide evidence that exposure to the substance through the article or category of articles will in fact occur. Rather, since the goal of SNURs is to bring to EPA’s attention and enable it to evaluate uses of chemicals that could present unreasonable risks, a reasonable expectation of possible exposure based on the nature of the substance or the potential uses of the article or category of articles will be sufficient to “warrant notification.” EPA has successfully used the SNUR authority in the existing law to provide for scrutiny of imported articles (many of which are widely used consumer products) that contain unsafe chemicals that have been restricted or discontinued in the U.S. and it’s critical that SNURs continue to perform this important public health function under the amended law.” (emphasis added).

¹⁷ Congressional Record – Senate S3516 (June 7, 2016)

As the Senators emphasized, section 5(a)(5) should be construed in light of the broad “goal of SNURs . . . to bring to EPA’s attention and enable it to evaluate uses of chemicals that could present unreasonable risks.” This goal should inform whether the “potential for exposure” to a SNUR chemical in an article “justifies notification.” Where the SNUR chemical raises significant health and environmental concerns, there will be a compelling interest in assuring that new uses that may increase exposure are not commenced without advance notice to EPA and the ability to prohibit or restrict the use if it may present an unreasonable risk. In such cases, the threshold for determining that the potential for exposure “justifies notification” should be low given the consequences of allowing articles that release the SNUR chemical to enter commerce without any review or control. Indeed, EPA itself acknowledges that Congress provided “considerable discretion” to apply section 5(a)(5) in a manner that advances TSCA’s health and environmental objectives.¹⁸

These considerations are uniquely important for the proposed LCPFAC SNUR. Since 2006, EPA has made a concerted effort to eliminate the manufacture and use of these chemicals, working with industry to secure a complete phase-out by 2015. As EPA has repeatedly found, LCPFACs are persistent and bioaccumulative, have been widely detected in the environment and in large and diverse human and wildlife populations, and have serious adverse human and ecological effects. Thus, the SNUR is a critical tool for achieving EPA’s express goal of reducing “the presence of LCPFAC substances in humans and the environment” by preventing new uses that “increase the magnitude and duration of exposure to humans and the environment to these chemical substances.” Given this objective, *any* potential that articles may contribute to exposure to LCPFACs plainly “justifies” their inclusion in the SNUR. Without the SNUR, foreign manufacturers could flood the US market with imported articles containing LCPFACs, with no ability by the Agency to assure that they do not increase exposure to chemicals that EPA has determined are unsafe and must be eliminated from commerce.

2. Applying SNUR Requirements to Articles Containing LCPFACs as Part of Surface Coatings

Several articles have historically contained LCPFACs as part of surface coatings and EPA provides a strong case for including all such articles in the supplemental SNUR proposal. As EPA notes, “[a]rticles that could potentially have LCPFAC substances as part of a surface coating include, but are not limited to: Furniture, medical garments, safety equipment, outdoor apparel or equipment, automobile components, aerospace components, electronics, heavy machinery, and household appliances.”¹⁹ EPA then explains that:²⁰

“The release of LCPFAC chemical substances from coatings in articles has been well-documented in the scientific literature. LCPFAC chemical substances can be released continuously over years from treated jackets, furniture, and carpets into the air due to volatilization (Refs. 17, 18, and 19) and due to degradation of commercial LCPFAC coatings by simple abiotic reaction with water (Ref. 20). Stone and tile sealants have been shown to contain

¹⁸ Thus, the March 3, 2020 supplemental proposal states that “Congress provided EPA with considerable discretion to determine (1) what is a “reasonable” potential for exposure; (2) what kind of reasonable potential “justifies” notification; and (3) whether, in EPA’s discretion (“*may require*”), to require notification in a case in which such a reasonable potential exists.” 85 Fed. Reg. 12481.

¹⁹ 85 Fed. Reg. 12485.

²⁰ *Id.*

extractable amounts of LCPFAC chemical substances and, for homes without carpeting, could be an indoor source of these chemical substances.”

On this basis, EPA concluded that it “has reason to anticipate that importing articles that have certain LCPFAC chemical substances as part of a surface coating would create the potential for exposure to these LCPFAC chemical substances, and that EPA should have an opportunity to review the intended use before such use could occur.”²¹

We agree with this conclusion and strongly support applying the SNUR to imported articles containing LCPFACs as part of a surface coating.

3. Expanding the SNUR to Include All Other LCPFAC-Containing Articles Based on the Reasonable Potential for Exposure

However, the 2020 supplemental proposal states that “EPA is not making a finding on the reasonable potential for exposure from articles that do not contain LCPFAC chemical substances as a surface coating.”²² Thus, a broad range of articles containing LCPFACs that were subject to SNUR requirements under the 2015 proposal would now be exempt. EPA provides no description of these excluded articles and thus does not explain why they lack sufficient potential for exposure to justify inclusion in the SNUR under section 5(a)(5).

As the 2015 proposal found, PFAS substances have been incorporated in the manufacture of numerous articles for purposes other than as a surface coating. Our own research confirmed many of these articles and the role played by PFAS substances (including LCPFACs) in their manufacture:

- Synthetic turf
 - In 2019: “The Ecology Center found elemental fluorine and specific PFAS chemicals in artificial turf, suggesting that PFAS is an ingredient of the carpet grass fibers or the backing, or a byproduct of the manufacturing process.”²³
 - A patent for polyethylene in synthetic turf at a link on the Ecology Center website indicates polyvinylidene fluoride could be a processing agent in this turf.²⁴
- Membranes for apparel
 - Although used as a laminate for highly porous fabrics for breathable water proofing, the PTFE layer is generally *under* the outermost layer of the garment so technically it is not a *surface coating*.²⁵

²¹ Id.

²² Id. at 12484

²³ Ecology Center, “Toxic ‘Forever Chemicals’ Infest Artificial Turf,” October 10, 2019, available at <https://www.ecocenter.org/toxic-forever-chemicals-infest-artificial-turf>.

²⁴ U.S. Patent Application Publication for “Poly[e]thylene composition for artificial turf,” Pub. No US 2008/0090955 A1, Pub. Date: April 17, 2008, available at <https://patentimages.storage.googleapis.com/01/d6/95/463b85ad1d93bd/US20080090955A1.pdf?eType=EmailBlastContent&eid=2768993e-5aaf-4e2c-9f42-a62433c34155>

²⁵ OECD Per- and Polyfluoroalkyl Substances (PFAS) webinar series: “Finding alternatives to per and polyfluoroalkyl substances of concern,” September 26, 2019, available at https://www.slideshare.net/OECD_ENV/oecd-per-and-polyfluoroalkyl-substances-pfas-webinar-series-finding-alternatives-to-per-and-polyfluoroalkyl-substances-of-concern-179762994 (slide 13); KEMI Swedish Chemicals Agency, “Occurrence and use of highly fluorinated

- [According to Reference 17](#) in EPA’s proposal,²⁶ “Water repellents and insoluble compounds can be *introduced into the fibers*, or the textile can be coated” (p.20) and “*Fabrics [can be] made of PTFE and/or containing PTFE membranes*” (p. 44).
- Reference 18 in EPA’s proposal²⁷ indicates that: “Even a jacket having a label of fluorine-free impregnation showed a concentration of 20 ng/m² PFOA. Three samples from the lower backside of the jacket were analyzed and each sample measured for PFOA. The use of PFOA-containing substances as repellent agent during the finishing of the textile cannot be ruled out considering this result. A contamination during the production is possible as well.” (p. 179).
- Antifogging
 - “PFASs can be blended into transparent polyvinyl chloride, polyethylene, or ethylene-vinyl acetate film to reduce clouding. (Kissa 2001)”²⁸
- Electronics manufacturing
 - “PFOS-based chemicals are used in the manufacturing of digital cameras, cell phones, printers, scanners, satellite communication systems, radar systems and the like.”²⁹
 - “Zinc battery electrolyte may contain PFAS. Alkaline manganese batteries may have MnO₂ cathodes treated with PFAS. (Kissa 2001)”³⁰
- Solder sleeve for aviation/aerospace/defense
 - This source indicates “cross-linked fluoropolymer” is the “body material” for a solder sleeve.³¹
- Semiconductor manufacturing process
 - “Fluoropolymers such as PFA are used to manufacture components (such as complex molded wafer baskets) that are used to handle corrosive liquids and gases in the semiconductor industry, where requirements for very pure materials are paramount.”³²
- Printed circuit boards

substances and alternatives,” 2015, available at <https://www.kemi.se/global/rapporter/2015/report-7-15-occurrence-and-use-of-highly-fluorinated-substances-and-alternatives.pdf> (page 33)

²⁶ Knepper, Thomas P., et al. “Understanding the exposure pathways of per- and polyfluoroalkyl substances (PFASs) via use of PFASs-containing products—risk estimation for man and environment.” *Texte* 47 (2014): 2014.

²⁷ Gremmel, Christoph, et al. “Systematic determination of perfluoroalkyl and polyfluoroalkyl substances (PFASs) in outdoor jackets.” *Chemosphere* 160 (2016): 173–180.

²⁸ Draft: For informational purposes, on “Per- and Polyfluoroalkyl Substances (PFASs) Usage,” May 25, 2017, https://kkw.org/wp-content/uploads/2018/02/PFAS_Usage_DRAFT_May2017.pdf (PDF page 4) (Note at bottom: “Please direct any questions about this document to Linda Gaines in US EPA, Office of Land and Emergency Management, Office of Superfund Remediation and Technology Innovation...”)

²⁹ Report of the Persistent Organic Pollutants Review Committee on the work of its sixth meeting, Addendum, “Guidance on alternatives to perfluorooctane sulfonic acid and its derivatives,” Distr.: General 8 November 2011, available via <https://www.informea.org/en/draft-guidance-alternatives-perfluorooctane-sulfonic-acid-and-its-derivatives> (PDF page 20 of report)

³⁰ Draft: For informational purposes, on “Per- and Polyfluoroalkyl Substances (PFASs) Usage,” May 25, 2017, https://kkw.org/wp-content/uploads/2018/02/PFAS_Usage_DRAFT_May2017.pdf (PDF page 5) (Note at bottom: “Please direct any questions about this document to Linda Gaines in US EPA, Office of Land and Emergency Management, Office of Superfund Remediation and Technology Innovation...”)

³¹ TE Connectivity CA7643N001 Cable Accessories, “Product Technical Specifications,” available at <https://www.arrow.com/en/products/ca7643n001/te-connectivity> (last accessed April 3, 2020).

³² OECD/UNEP Global PFC Group, “Synthesis paper on per- and polyfluorinated chemicals (PFCs),” 2013, available at http://www.oecd.org/env/ehs/risk-management/PFC_FINAL-Web.pdf (PDF page 18, citing to [this](#))

- “Fluoropolymers, due to the properties such as dielectric and water-repellent, are used in applications such as printed circuit boards, which are laminates of copper on a fiber-reinforced fluoropolymer layer.”³³
- Mechanical components:
 - Pipes, liners, fittings for fluid-handling applications
 - Solid PVDF is “used to make pipes, fittings, and liners for fluid-handling applications”³⁴
 - Tubing
 - Fluoro-ethylene propylene copolymer (FEP) tubing (under heading “List of consumer products that may contain a source of PFOA”)³⁵
 - Can also be made from PTFE³⁶
 - Gaskets
 - Can be made from PTFE³⁷
 - Wire-related:
 - Fluoropolymer foam resin to help ensure insulation adheres to wires³⁸
 - Many other components³⁹
- Electronics
 - PVDF films are used in applications such as speakers and transducers, in order to “provide an electrical signal in response to mechanical or thermal signals, or inversely, mechanical motion or a change in heat content in response to an applied electrical field.”⁴⁰ The film may be inside the speaker/transducer.
- Antiblocking agents
 - “PFASs have been used in formulations for antiblocking agents for vulcanized and unvulcanized rubbers. (Kissa 2001)”⁴¹
 - “Antiblock/ anti-slip agents can be applied internally or in several cases, applied on the surface” – so it *may* be internal rather than a surface coating.”⁴²
- High purity piping and semiconductor piping⁴³

³³ OECD/UNEP Global PFC Group, “Synthesis paper on per- and polyfluorinated chemicals (PFCs),” 2013, available at http://www.oecd.org/env/ehs/risk-management/PFC_FINAL-Web.pdf (PDF page 18, citing to page 348 [here](#)). Technically, since the copper is on [top of] the fluoropolymer layer, the fluoropolymer is not on the surface.

³⁴ “Organofluorine Chemistry: Principles and Commercial Applications” via Google Books, [page 358](#)

³⁵ Van der Putte, Iksan, “Analysis of the risks arising from the industrial use of Perfluorooctanoic acid (PFOA) and Ammonium Perfluorooctanoate (APFO) and from their use in consumer articles. Evaluation of the risk reduction measures for potential restrictions on the manufacture, placing on the market and use of PFOA and APFO,” January 14, 2010, available at <https://ec.europa.eu/docsroom/documents/13037/attachments/1/translations/en/renditions/pdf> (PDF page 94)

³⁶ <https://www.ptfeplastics.com/project/ptfe-tubing/>

³⁷ <https://www.accutrex.com/ptfe-gaskets>

³⁸ <https://www.teflon.com/en/products/resins/ffr>

³⁹ <https://www.ptfeplastics.com/project/ptfe-machined-parts/>

⁴⁰ “Organofluorine Chemistry: Principles and Commercial Applications” via Google Books, [page 358](#)

⁴¹ Draft: For informational purposes, on “Per- and Polyfluoroalkyl Substances (PFASs) Usage,” May 25, 2017, https://kkw.org/wp-content/uploads/2018/02/PFAS_Usage_DRAFT_May2017.pdf (PDF page 4) (Note at bottom: “Please direct any questions about this document to Linda Gaines in US EPA, Office of Land and Emergency Management, Office of Superfund Remediation and Technology Innovation...”)

⁴² <https://polymer-additives.specialchem.com/selection-guide/antiblock-agents-selection>

⁴³ Van der Putte, Iksan, “Analysis of the risks arising from the industrial use of Perfluorooctanoic acid (PFOA) and Ammonium Perfluorooctanoate (APFO) and from their use in consumer articles. Evaluation of the risk reduction

EPA need not demonstrate actual exposure from release of LCPFACs from these articles but can apply SNUR requirements where it finds a “reasonable potential for exposure” under expected conditions of processing, use, and disposal. Plainly, there are several scenarios under which potential exposure to LCPFACs from these articles is plausible and reasonably foreseeable. For example, the articles may release LCPFACs during end-use, when disassembled and broken apart during recycling, when reintroduced into manufacturing operations following recycling, when incinerated, and as a result of weathering and abrasion during disposal in landfills or impoundments.⁴⁴

Analogies to these LCPFAC-articles can be found in other chemical substances for which releases from articles are known to occur as a result of mechanical and/or chemical or photolytic activities on the matrix containing the substance, independent of its specific physical-chemical properties. Such releases have been documented in studies on, e.g., polybrominated diphenyl ethers (PBDEs), phthalates, and polychlorinated biphenyls (PCBs) which confirm the presence of these chemicals in house dust.⁴⁵ Although superficially different from PCPFACs, the mechanisms that result in their release from articles (e.g., abrasion, degradation, wear or volatilization) derive mainly from the properties and use of the article and thus should be relevant to PCPFACs when present in similar types of articles. For example, if volatile, the PCPFAC would partition from a product directly into the air before attaching to a dust particle. Another pathway would involve routine wear and tear, UV degradation, cleaning, cracking, and fraying, resulting in particles of the polymer matrix being leached out of the article and then attaching to the dust particle. Another alternative would be migration of the PCPFAC within the pores of the polymer matrix to the surface where it then comes in contact with and is transferred to the dust.

Thus, analogous to the release of LCPFAC chemical substances from wood products, a 2007 study showed that commercially available wood finishes containing PCBs continue to be linked to PCB exposures, decades after PCB use was banned.⁴⁶ Likewise, bisphenol-A (BPA) has been shown to be released from thermal paper receipts, magazines, newspapers and other products.⁴⁷ and to be transferred to other paper products following recycling of BPA containing paper.⁴⁸

measures for potential restrictions on the manufacture, placing on the market and use of PFOA and APFO,” January 14, 2010, available at <https://ec.europa.eu/docsroom/documents/13037/attachments/1/translations/en/renditions/pdf>

⁴⁴ Our understanding is that LCPFAC-containing ski waxes and fire-fighting foams are not articles but mixtures. EPA should confirm this understanding in its final rule.

⁴⁵ Rudel, Ruthann A., et al. "Phthalates, alkylphenols, pesticides, polybrominated diphenyl ethers, and other endocrine-disrupting compounds in indoor air and dust." *Environmental Science & Technology* 37.20 (2003): 4543-4553.

⁴⁶ Rudel, Ruthann A., Liesel M. Seryak, and Julia G. Brody. "PCB-containing wood floor finish is a likely source of elevated PCBs in residents' blood, household air and dust: a case study of exposure." *Environmental Health* 7.1 (2008): 2.

⁴⁷ Liao, Chunyang, and Kurunthachalam Kannan. "Widespread occurrence of bisphenol A in paper and paper products: implications for human exposure." *Environmental Science & Technology* 45.21 (2011): 9372-9379; Geens, Tinne, et al. "Levels of bisphenol-A in thermal paper receipts from Belgium and estimation of human exposure." *Science of the Total Environment* 435 (2012): 30-33

⁴⁸ Gehring, Martin, et al. "Bisphenol A contamination of wastepaper, cellulose and recycled paper products." *WIT Transactions on Ecology and the Environment* 78 (2004): 293-300.

In addition, based on evidence that residual PFOA is not completely removed during coating of metal cookware,⁴⁹ it is likely LCPFAC-containing metal products could release LCPFACs into the gas phase under similar high temperatures or even without heating, e.g. foil packages for bearings or other lubricated parts, based on the volatilization of LCPFACs from textiles and grease-resistant food packaging.

LCPFAC polymers also have the potential for release as the polymer degrades or is abraded and small pieces of polymer break off. Evidence of this release scenario is provided by data on polymers containing other substances (e.g., a plastic electronic housing) that undergo mechanical and/or chemical or photolytic activities. For example, PBDEs have been shown to migrate into dust from PBDE-treated plastic due to abrasion of treated plastic television casings.⁵⁰ Another study showed that people recycling foam-containing products or using products containing recycled foam have higher serum level concentrations of PBDEs.⁵¹ An additional study suggested the recycling of old electronic thermoplastic products might be a potentially important source of PBDEs to the environment.⁵² PBDEs were also shown to migrate to dust from parts of housing front cabinets, rear cabinets, and circuit boards of televisions.⁵³ LCPFACs in similar polymer articles are also likely to be released during normal wear and tear, use of the article, or recycling and disposal, where the article may break down during disassembly, shredding, or compaction.

In light of the compelling need to eliminate further exposure to LCPFACs following the 2015 phaseout of manufacture and use, these scenarios demonstrate a reasonable potential for exposure which “justifies notification” under the SNUR before any articles containing these chemicals are imported into the United States. Thus, like the 2015 proposal, the final SNUR should apply to all such articles.

III. EPA Should Not Set a Threshold or Other Safe Harbor for Determining a Reasonable Potential for Exposure to SNUR Chemicals Contained in Articles

In the supplemental proposal, “EPA requests comment on whether or not the Agency should affirmatively establish an explicit threshold at which, or explicit criteria for determining whether, a significant new use exhibits a reasonable potential for exposure that justifies notification.”⁵⁴ There is no indication that Congress envisioned the use of such thresholds or criteria in implementing section 5(a)(5) and, in our judgment, they would be inherently arbitrary and contrary to TSCA.

⁴⁹ Sinclair, Ewan, et al. "Quantitation of gas-phase perfluoroalkyl surfactants and fluorotelomer alcohols released from nonstick cookware and microwave popcorn bags *Environmental Science & Technology* 41.4 (2007): 1180-1185.

⁵⁰ Rauert, C., and S. Harrad. "Mass transfer of PBDEs from plastic TV casing to indoor dust via three migration pathways—A test chamber investigation." *Science of The Total Environment* 536 (2015): 568-574.

⁵¹ Stapleton, Heather M., et al. "Serum levels of polybrominated diphenyl ethers (PBDEs) in foam recyclers and carpet installers working in the United States." *Environmental Science & Technology* 42.9 (2008): 3453-3458.

⁵² Chen, She-Jun, et al. "Measurement and human exposure assessment of brominated flame retardants in household products from South China." *Journal of Hazardous Materials* 176.1 (2010): 979-984.

⁵³ Takigami, Hidetaka, et al. "Transfer of brominated flame retardants from components into dust inside television cabinets." *Chemosphere* 73.2 (2008): 161-169.

⁵⁴ 85 Fed. Reg. 12481.

EPA suggests that a threshold for determining the level of exposure necessary to trigger SNUR requirements could be based on the following rationales:⁵⁵

“(1) Below the selected threshold level, there is no ‘reasonable potential for exposure’ within the meaning of section 5(a)(5) (*i.e.*, the risk of exposure is very low); and (2) below the selected threshold level, there is a ‘reasonable potential for exposure’ (or, alternatively, there may be such a potential), but the potential does not ‘justif[y] notification’ (*i.e.*, potential for risk is very low in light of the low level of LCPFAC present in the surface coating).”

These approaches presuppose that it is possible to identify a level of release that can be confidently deemed to lack any potential to cause harm. But as EPA has repeatedly emphasized, SNURs are not risk-based and do not require a determination that the designated new uses that trigger a SNUR do or may present unreasonable risks. Rather, the goal of the SNUR is to identify in advance new uses that may increase exposure so that EPA can review them and judge whether their contribution to exposure raises health or environmental concerns that warrant restriction. To exempt a new use from the SNUR based on an upfront “no risk” determination would be to turn the precautionary purposes of TSCA’s SNUR provisions on their head: the very reason for the SNUR is that the Agency will not be in a position to make judgements about risk and exposure until it receives a detailed notice describing the new use. Thus, where EPA believes there is a reasonable potential for exposure to a SNUR substance in an article, it should require notification for the article component so it can determine the significance of the potential exposure before the article is imported and placed in commerce. Use of an arbitrary risk-based threshold to exempt articles from SNURs would defeat this goal.

This is particularly important for LCPFACs, which bioaccumulate in people and wildlife, are ubiquitous in the environment, and cause adverse effects at very low concentrations. In light of these properties, EPA has no basis to conclude that an increase in exposure to LCPFACs as a result of releases from articles is too small to pose any possible risk. Indeed, as described above, EPA has explicitly set of a goal of reducing or eliminating exposure to LCPFACs and seeks to use the proposed SNUR to identify new uses that would defeat this goal. To determine in advance that, even though certain new uses will increase exposure, the increase is too inconsequential to warrant SNUR notification would undermine EPA’s stated objective of eliminating the presence of LCPFACs in the environment and people to the greatest extent practicable.

To justify setting threshold levels of exposure for article components, EPA points to a line of cases that allow agencies “to overlook circumstances that in context may fairly be considered *de minimis*.” *Alabama Power Co. v. Costle*, 636 F.2d 323, 360-61 (D.C. Cir. 1980). But this doctrine is extremely narrow in scope and, as *Alabama Power* indicates, only applies “when the burdens of regulation yield a gain of trivial or no value” and literal compliance with a statute would “mandate pointless expenditures of effort.” This is simply not the case with SNURs that apply to imported articles which may release chemicals of concern like LCPFACs. The “gain” to public health of receiving a SNUR for such an article is far from “trivial or of no value” but will enable the Agency to review and prevent increases in exposure that may present an unreasonable risk. To create *de minimis* exemptions that prevent EPA from performing this important role will frustrate, not enhance, implementation of TSCA.

⁵⁵ *Id* at 12482.

The supplemental notice also notes that some article importers “may not identify at the time of this rulemaking that they have an ongoing use of a LCPFAC” and “requests comment on whether or not the Agency should include a safe harbor provision for importers of articles that can demonstrate their use was ongoing prior to the effective date of this rule.”⁵⁶ Such a “safe harbor” is unwarranted and would reward the lack of diligence of foreign manufacturers and their US customers who, like the rest of the regulated community, should stay abreast of regulatory developments that affect their interests and provide timely feedback to the Agency. If they fail to do so and their product is subject to the SNUR, the remedy should be to stop imports and submit a SNUN to EPA – not to provide a retroactive waiver of compliance.

IV. EPA Should Finalize Its 2015 Proposal to Apply SNUR Requirements to Carpets Containing Long-Chain Sulfonates

In a previous SNUR for long-chain perfluoroalkyl sulfonates, EPA exempted certain ongoing uses of these substances, including use in carpets. 40 CFR § 721.9582. However, the 2015 proposal indicates that “the Agency believes the manufacture (including import) and processing of any of the PFAS chemical substances subject to this rule has been discontinued, including the importing of these chemical substances as part of carpets.”⁵⁷ The proposal then indicates that the potential exists for exposure to these PFAS during use of carpets (which are articles under TSCA) and they should be subject to SNUR requirements:⁵⁸

“Based on EPA’s Office of Research and Development’s research and the considerations in the preceding paragraphs (see, e.g., Ref. 30), EPA believes that if the import of carpets containing these chemical substances were to resume, people and the environment could be exposed to these chemical substances in articles. The existing regulation at 40 CFR 721.9582 broadly defined the significant use in a way that encompassed import of these chemical substances as part of carpets, but for clarity EPA is proposing to expressly list import as part of carpets as a significant new use for the chemicals covered by 40 CFR 721.9582, and in light of the referenced considerations, EPA is now proposing to make inapplicable the exemption at 40 CFR 721.45 to importers of these chemical substances as part of articles.”

In the 2020 supplemental proposal, EPA notes the expansion of SNUR requirements to cover carpets under the 2015 proposal but indicates it will address these provisions in its final rule after considering comments.⁵⁹ Since carpets are a significant source of exposure to PFAS, including by children, their inclusion in EPA’s final rule is essential.

It is unclear whether the 2015 proposal eliminates the exemptions in 40 CFR § 721.9582(a)(3) for a number of PFAS uses, including as a “coating for surface tension, static discharge, and adhesion control for analog and digital imaging films, papers, and printing plates, or as a surfactant in mixtures used to process imaging films.” Since EPA believes these uses have been discontinued, they should be designated as “significant new uses” and the article exemption in §721.45(f) should not apply. We

⁵⁶ Id. Not only have prospective importers be put on noticed by the 2020 supplemental proposal, but the more expansive 2015 proposal asked importers of existing articles to inform EPA of the nature of their products.

⁵⁷ 80 Fed. Reg. 2891

⁵⁸ Id.

⁵⁹ 85 Fed. Reg. 12480

believe this is the likely intent of the 2015 proposal, but EPA should assure that the final wording of the SNUR provisions is explicit in this regard.

V. Processing Should Not be Exempt from the SNUR

The 2015 proposal required submission of a SNUN 90 days in advance of any manufacture or processing of LCPFACs for a significant new use. Surprisingly, however, the preamble to the 2020 supplemental proposal indicates that the SNUR would not apply to processors. EPA explains this exclusion as follows:⁶⁰

“As to processors, it is EPA’s understanding that there is no ongoing manufacturing or processing of LCPFAC chemical substances in the U.S. Based on that understanding, EPA does not expect that there would be any future such processing, and EPA therefore is not proposing that this Supplemental Proposed Rule apply to processors.”

Under section 5(a)(1)(A)(ii) of TSCA, it is unlawful to “manufacture *or process* any chemical for a use which the Administrator has determined . . . is a significant new use” without submitting the required notice to EPA (emphasis added). Thus, EPA lacks authority under the plain language of the law to allow processing of SNUR chemicals without complying with SNUN requirements. EPA does not explain why it “does not expect” any future processing of LCPFACs for significant new uses but this expectation would not in any case justify departing from the express language of TSCA. Moreover, EPA ignores the possibility that an LCPFAC might be manufactured or imported in violation of the SNUR and could then be sold to processors, who use it to produce and distribute other substances or articles. If processors are not themselves subject to the SNUR, EPA would lack the ability to use its enforcement authorities to prevent these activities and impose civil or criminal penalties, thus providing a safe harbor for conduct that should be deemed to violate TSCA.

We strongly recommend that processing be subject to the final SNUR.

VI. EPA Should Issue SNURs For All PFAS (Short- and Long-Chain) that Are Not in Active Production and Apply SNUR Requirements to All Articles Containing these Substances

Recent research and analysis indicate that short-chain PFAS have characteristics that raise serious concern and should not be assumed to be less harmful than PFOS, PFOA and other long-chain PFAS. In its PFAS Action Plan, EPA recognized that, although the “toxicities of short-chain PFAS have generally been less thoroughly studied,” they are “as persistent in the environment as their longer-chain analogues and are highly mobile in soil and water.”⁶¹ Moreover, the EPA toxicity assessments for GenX chemicals and PFBS – two short-chain PFAS – identify several serious hazards based on available data. In its section 5(e) order for GenX, EPA based its “may present” finding on structural analogies to PFOS and PFOA. Testing conducted by Chemours under the order then demonstrated many of the adverse health effects linked to these two long-chain compounds. According to Linda Birnbaum, former senior EPA

⁶⁰ Id. at 12480. This preamble statement is in conflict with the text of the supplemental proposed rule, which defines processing of the LCPFACs as a significant new use. Also, the economic assessment for the SNUR provides another justification for not applying the SNUR to processors – that existing stocks of articles containing LCPFACs have not been depleted – but no evidence supporting this assertion is provided and it is not repeated in the preamble. EPA. *Economic Analysis of the Supplemental Proposal to the Significant New Use Rule for Perfluoroalkyl Sulfonates and Long-Chain Perfluoroalkyl Carboxylate Chemical Substances*. January 23, 2020.

⁶¹ EPA’s Per- and Polyfluoroalkyl Substances (PFAS) Action Plan, February, 2019, at 13 (PFAS Action Plan), https://www.epa.gov/sites/production/files/2019-02/documents/pfas_action_plan_021319_508compliant_1.pdf

scientist and director of the National Institute for Environmental Health Science, “[a]pproaching PFAS as a class for assessing exposure and biological impact is the most prudent approach to protect public health.”⁶² Thus, EPA should presume that short-chain PFAS have the same adverse health and environmental effects and potential for accumulation in people and the environment as the long-chain compounds.

However, the SNURs issued by EPA to date for PFAS no longer in manufacture and use have only applied to long-chain molecules.⁶³ EPA issued a set of SNURs following the phase-out of PFOS and related compounds in the late 1990s, but they were limited to long-chain perfluorinated sulfonates.⁶⁴ Similarly, the 2020 supplemental proposal, like the original proposal in 2015, is for long-chain PFOA and PFOA-related chemicals phased out under EPA’s 2006 PFOA Stewardship Program. Thus, there are no SNURs that apply to short-chain PFAS and impose restrictions on the reintroduction of substances in this category that are no longer in commercial production or are planned to be manufactured for new uses. Given EPA’s observation that half of the PFAS listed on the Inventory are not now being manufactured for commercial purposes,⁶⁵ the real-world benefits of such requirements would be substantial. Equally important, by promulgating SNURs for PFAS that have previously completed PMN review, EPA can assure that it is notified of proposed new uses of these chemicals before they are initiated and is able to restrict them as well. For the reasons discussed above, these SNURs should broadly apply to imports of articles as well as manufacture and processing of the covered PFAS substance and mixtures contained in them.

We urge EPA to give high priority to developing additional PFAS SNURs for these short-chain substances.

Conclusion

We appreciate this opportunity to comment on EPA’s supplemental SNUR proposal for LCPFACs.

Respectfully submitted,

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⁶² Hearing on “Examining the Federal response to the risks associated with per- and polyfluoroalkyl substances (PFAS)” Before the S. Comm. on Env’t & Pub. Works, 13 (2019).

⁶³ These earlier SNURs did not expressly apply to articles. However, as discussed above, the 2015 proposal appears to eliminate the article exemption for uses that EPA now believes have been discontinued. EPA needs to assure explicitly that the final rule applies to all articles containing long-chain perfluorinated sulfonates since the article uses of these substances have a “reasonable potential for exposure” as required by TSCA.

⁶⁴ See note 3 supra.

⁶⁵ PFAS Action Plan at 11.

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