THE ATTORNEYS GENERAL OF ARIZONA, MASSACHUSETTS, THE DISTRICT OF COLUMBIA, VERMONT, MARYLAND, CONNECTICUT, MINNESOTA, CALIFORNIA, PENNSYLVANIA, NEW JERSEY, NEW YORK, AND OREGON, AND THE CORPORATION COUNSEL OF THE CITY OF NEW YORK

January 16, 2024

Via Electronic Filing

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Melanie Adams
Safer Choice Program (7406M)
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
1201 Constitution Ave. NW
Washington, DC 20004

Re: Proposed Updates to EPA Safer Choice Standard

Dear Ms. Adams,

The Attorneys General of Arizona, Massachusetts, the District of Columbia, Vermont, Maryland, Connecticut, Minnesota, California, Pennsylvania, New Jersey, New York, and Oregon and the Corporation Counsel of the City of New York, submit these comments regarding the U.S. Environmental Protection Agency's (EPA or the Agency) proposed updates to the Agency's Safer Choice standard (Standard), an "informed substitution" program promoting safer product design and green alternatives to hazardous chemicals.[1] We support EPA's efforts to update the Standard to reflect scientific and technological developments.[2] These comments are offered to advance EPA's goal of designing the Standard to incentivize products with the "safest possible ingredients" for humans and for the environment.[3]

[1] U.S. Environmental Protection Agency (EPA), *EPA's Safer Choice and Design for the Environment (DfE) Standard,* https://www.epa.gov/system/files/documents/2023-11/epas-safer-choice-standard-november-2023.pdf, at v [hereinafter *Proposed Standard*]; 88 Fed. Reg 78,017 (Nov. 14, 2023).
[2] EPA, *Proposed Changes to EPA's Safer Choice Standard*, https://www.epa.gov/system/files/documents/2023-11/proposed-changes-to-epas-safer-choice-standard.pdf, at 1 [hereinafter *Preamble to Proposed Standard*] (last visited Jan. 11, 2024).
[3] *Proposed Standard*, *supra* note 1, at vi.

Our jurisdictions have a vested interest in ensuring EPA produces the best possible version of the Standard. Federal efforts to incentivize green chemical alternatives and reusable product packaging benefit our citizens and our environments by reducing pollutant concentrations and by seeding more circular—and less wasteful—economies.[4] The Standard's approach to disposable wipes will impact our wastewater treatment systems and receiving waters, which are being harmed by improper wipe disposal. Further, transparency about what is in a product goes to the core of many of our jurisdictions' responsibility to protect consumers and to ensure truthful advertising practices.

In that spirit, we recommend EPA consider the following changes to the proposed Standard:

- Take a cradle-to-grave approach to evaluating a product's lifecycle.
- Create an in-house audit team to ensure partnering formulators are using the safer chemicals they claim they are, instead of relying on third party auditors to do so.
- Do not certify any product with PFAS in it.
- Provide additional technical assistance to small- and medium-sized businesses interested in certification.
- Update the citation for the Agency's authority to conduct the Safer Choice program.
- Require public comment when the Agency enters a product class.
- Only recognize formulators' substantial reductions in carbon-based energy use and consider eliminating the clause permitting recognition for formulators "pursuing other actions that lead to energy savings."
- Do not certify products with plastic primary packaging and develop a phasedown approach for already-certified products to encourage formulators to switch to non-plastic primary packaging; but, if products with plastic primary packaging are to be certified, do not certify products with post-consumer plastic content generated by advanced recycling technologies; develop EPA's own certification program for recycled content, rather than relying on third-party certification programs; do not certify products with plastic primary packaging designed for single use.
- Adopt more ambitious post-consumer recycled content requirements for products with metal and glass primary packaging.
- Modify language saying primary packaging should "designed to be reused" to ensure formulators have developed a primary packaging reuse system.

[4] *See* EPA, *Circular Economy*, https://www.epa.gov/circulareconomy (last visited Jan. 11, 2024).

- Clarify the 10% limitation on yellow triangle ingredients.
- Do not certify products containing hazardous air pollutants (HAPs), Toxic Release Inventory (TRI)-listed chemicals, known carcinogens, mutagens, and reproductive toxicants.
- Define disposable wipes covered by the Standard; consider state "Do Not Flush" laws when developing Standard requirements; certify only wipes that can be flushed without damaging wastewater systems; do not certify wipes with plastic fibers or those made with chemically regenerated cellulose fibers; and do not certify wipes with dubious "compostable" or "biodegradable" claims attached to them.
- Do not certify products with compounds exceeding the proposed residuals limit.

I. Background on EPA's Safer Choice Standard

EPA's Safer Choice program seeks to "minimize the likelihood of unintended consequences" by partnering with industry, scientific experts, and environmental groups to balance product performance with environmental and public health protection.[5] Safer Choice certifies products in a class that contain the "safest possible ingredients" to achieve the product's function.[6] Safer Choice also considers product lifecycle factors like a product's energy use or potential water savings of using one product in a class versus another.[7] Safer Choice certification allows a producer (formulator) to partner with EPA and to place a Safer Choice label on its product to signal to consumers that the product contains only ingredients with the least concern.[8]

EPA has now proposed several updates to its guidelines, including 1) updating references used to determine whether products qualify for certification; 2) revising definitions (including adding new definitions related to a product's recyclability); 3) adding lifecycle information concerning reducing carbon-based energy consumption; 4) detailing requirements for sustainable packaging; and 5) adding provisions for certifying cleaning service providers.[9] The agency also

[5] *Proposed Standard*, *supra* note 1, at v.
[6] *Id.; Proposed Standard*, *supra* note 1, at vi.
[7] *Id*. We urge EPA to use lifecycle analysis cautiously and in a way that accounts for a product's cradle-to-grave impacts, including waste and pollution issues. Solely focusing on the environmental impacts of production is myopic. *See* California Dep't of Justice et al., *Draft National Strategy to Prevent Plastic Pollution: Request for Public Comment*, July 31, 2023, https://www.regulations.gov/comment/EPA-HQ-OLEM-2023-0228-0247, at 2 [hereinafter *Multistate Comments on Draft National Strategy to Prevent Plastic Pollution*].
[8] *Proposed Standard, supra* note 1, at vi.
[9] EPA, *Safer Choice Standard and Criteria,* https://www.epa.gov/saferchoice/standard#changes (last visited Jan. 11, 2024).

revised the guidelines to incorporate its related Design for the Environment (DfE) certification, which applies specifically to anti-microbial products that meet the Safer Choice standard and are registered under FIFRA.[10]

II. General Comments on Proposed Revisions to Standard

A. Evaluate a Product's Entire Lifecycle—Not Just Its Use

We recommend EPA take a cradle-to-grave view of a product's lifecycle, considering production, use, and disposal. EPA's updates to the Safer Choice standard must ensure the Agency only certifies a product after thoroughly considering all of the product's impacts on the environment and on human health to meet the program's goal of products with "the safest possible ingredients."[11] This consideration should extend to the entire life of a product, including its manufacturing and disposal.[12] A more holistic lifecycle analysis that considers production and disposal aligns with EPA's agency-wide strategy—and our jurisdictions' mutual goal—to encourage a less wasteful, more circular economy.[13]

B. Improve Transparency Around Product Profiling

We encourage EPA to consider developing a more transparent product profiling process—conducted by the Agency itself rather than by third parties. The Standard requires formulators to confidentially submit product

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[10] *Id.*

[11] Under multiple statutes, EPA is required to consider health and environmental harms and should bring the same, overarching approach to Safer Choice standard review. *See, e.g.,* Toxic Substances Control Act, 15 U.S.C. § 2604 (requiring the Administrator to consider whether the use of a chemical substance is a significant new use that alters exposure to humans or the environment, determine whether the use presents an unreasonable risk of injury to health or the environment, and if so, take certain steps to protect the public from those unreasonable risks); Clean Water Act, 33 U.S.C. § 1312(a) (authorizing the Administrator to establish effluent limitations for point sources or groups of point sources that would interfere with water quality in navigable waters to protect public health); Clean Air Act, 42 U.S.C. § 7609 (requiring the Administrator review and comment in writing on the environmental impact of any matter relating to their authorized duties and responsibilities); Resource Conservation and Recovery Act, 42 U.S.C. §§ 6934(a) (authorizing the Administrator to issue an order requiring a facility owner or operator to conduct certain tasks if they determine the presence of any hazardous waste facility or site or the release of such waste may present a substantial hazard to human health or the environment), 6981(a)(1) (authorizing the Administrator to encourage or render financial and other assistance to public entities to conduct work related to the adverse health and welfare effects related to the release of solid waste and methods to eliminate such effects); Pollution Prevention Act, 42 U.S.C. § 13107(a) (requiring the Administrator to provide Congress with biennial reports detailing actions taken to promote source reduction, results of those actions, assess effectiveness of the clearinghouse and grant program, and evaluate data gaps and duplication); National Environmental Policy Act, 42 U.S.C. § 4336 (requiring agencies to prepare environmental review documents for proposed agency actions); *Proposed Standard*, *supra* note 1, at vi.

[12] *Multistate Comments on Draft National Strategy to Prevent Plastic Pollution*, *supra* note 7, at 2.

[13] EPA, *Circular Economy*, *supra* note 4.

information to EPA and to enter into a partnership agreement with the Agency to be certified for an initial three-year period.[14] Formulators are also subject to desk audits and onsite audits by third-party certification bodies (profilers) for continued participation and certification.[15]

EPA has recently recognized the need for greater transparency in communicating product chemical contents.[16] The use of third-party profilers may limit the public's access to information under the Freedom of Information Act (FOIA).[17] For example, members of the public may wish to review formulator audit records and communications between the profiler and the formulator to evaluate potential conflicts of interest.[18] EPA's current profiler arrangement makes these inquiries more difficult to pursue when compared to an in-house certification team, which would be plainly subject to FOIA requests.

An in-house certification team is feasible: EPA already reviews in-house the chemicals submitted by formulators for certified products, and EPA regularly conducts environmental compliance audits like those required for third-party profiles under the Standard.[19] Partnering formulators reap an economic benefit from certification and could help fund an in-house profiler team.[20]

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[14] *Proposed Standard*, *supra* note 1, at 10.
[15] *Id.* at 11-12.
[16] EPA, *Draft National Strategy to Prevent Plastic Pollution,* https://www.epa.gov/system/files/documents/2023-04/Draft_National_Strategy_to_Prevent_Plastic_Pollution.pdf, at 21 (Apr. 2023); EPA, *EPA Finalizes Rule to Increase Transparency, Modernize Reporting under Toxic Substance Control Act* (June 1, 2023), https://www.epa.gov/newsreleases/epa-finalizes-rule-increase-transparency-modernize-reporting-under-toxic-substance.
[17] Third-party profilers may not be government contractors, at least not for purposes of certifying a formulator's compliance under the Safer Choice Standard. This makes Freedom of Information Act requests—a core tool for transparency—more difficult to use by interested parties.
[18] Confidential business information would be protected under Exemption 4 of FOIA. 5 U.S.C. § 552(b)(4).
[19] *Proposed Standard*, *supra* note 1, at vi; *Proposed Standard*, *supra* note 1, at Annex C (describing desk and site audit rules for third-party profilers); EPA, *How We Monitor Compliance*, https://www.epa.gov/compliance/how-we-monitor-compliance (last visited Jan. 15, 2024).
[20] *Proposed Standard*, *supra* note 1, at vi (Safer Choice partners "have invested heavily in research, development, and reformulation to ensure that their ingredients and finished product align at the green end of the health and environmental spectrum"); *see, e.g.,* The Clorox Company, *EPA Names Clorox as 2023 Safer Choice Partner of the Year for Advancing Ingredient and Product Safety* (Oct. 2, 2023), https://investors.thecloroxcompany.com/investors/news-and-events/press-releases/press-release-details/2023/EPA-Names-Clorox-as-2023-Safer-Choice-Partner-of-the-Year-for-Advancing-Ingredient-and-Product-Safety/default.aspx (press release from Clorox Company touting Safer Choice-certified products and 2023 Safer Choice Partner of the Year Award); Seventh Generation, *The Safer Choice Label* (Mar. 10, 2020), *https://www.seventhgeneration.com/blog/safer-choice-label* (touting Safer Choice-certified products and Safer Choice Partner of the Year 2021 award), Charlie's Soap, *Why Safer Choice Matters*, https://www.charliesoap.com/safer-choice/ (touting Safer Choice-

At a minimum, EPA should remove language treating all information from formulator audits as confidential information and should narrowly define "proprietary information" to allow for greater transparency around the product certification process.[21]

C. Do Not Certify Products with Per- and Poly-Fluoroalkyl Substances (PFAS)

EPA should ensure certified products are free from per- and poly-fluoroalkyl substances (PFAS). EPA's proposal to deny certification to products with PFAS intentionally introduced into a product's primary packaging does not go far enough to reduce consumer and environmental exposure to harmful PFAS.[22] Safer Choice certification signals to consumers a product contains the "safest possible ingredients," which indicates that it would not have harmful contaminants like PFAS.[23] EPA is well aware that PFAS can pose a serious threat to human and environmental health.[24] Testing for unintentionally[25] and intentionally introduced PFAS is available now.[26] Participating formulators can and should be required to test every aspect of their products—including the label, packaging, and contents—to ensure PFAS is not present.[27]

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certified products) (last visited Jan. 16, 2024), Waxie Sanitary Supply, *EPA Safer Choice*, https://info.waxie.com/epa-saferchoice (noting availability of Safer Choice-certified products available for purchase) (last visited Jan. 16, 2024), Simple Green, *Safer Choice Certified*, https://simplegreen.com/safer-choice/ (listing Safer Choice-certified products) (last visited Jan. 16, 2024).

[21] *See Proposed Standard*, *supra* note 1, at Annex A-6 (adding language making information supplied to EPA pursuant to audits confidential business information; *see also Proposed Standard*, *supra* note 1, at Annex A-3 (making "proprietary information" furnished to EPA confidential business information).

[22] *Id.* at 7 (Primary packaging: A container or separable material component in direct contact with the formulated product), 18.

[23] *Id.* at vi.

[24] EPA, *PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024* (Oct. 2021), https://www.epa.gov/system/files/documents/2021-10/pfas-roadmap_final-508.pdf, at 5.

[25] Unintentionally included PFAS can originate from a variety of sources. Of particular note with respect to proposed new section 4.2.5.1, PFAS can be present in commonly recycled plastic materials such as HPDE (https://www.epa.gov/newsreleases/epa-takes-action-protect-people-pfas-leach-plastic-containers-pesticides-and-other) and other recycled materials such as paper (Hakon A. Langberg, *Recycling of paper, cardboard and its PFAS in Norway*, JOURNAL OF HAZARDOUS LETTERS 5:100096 (2004), *available at* https://www.sciencedirect.com/science/article/pii/S2666911023000229.

[26] Targeted commercial testing is available for certain PFAS molecules. *See, e.g.*, https://www.eurofinsus.com/environment-testing/pfas-testing/pfas-analyte-lists/. Total organic fluorine testing, which is also commercially available, can be used as a proxy for all PFAS including those for which a specific lab test is not yet available. *See, e.g.*, *PFAS Analysis Toolkit*, BUREAU VERITAS (Feb. 12, 2021), https://www.bvna.com/insight/pfas-analysis-toolkit-lcmsms-total-oxidizable-precursors-tops-and-total-organic-fluorine.

[27] As an interim step, formulators could be required to test a random sampling of their products for PFAS.

D. Provide Additional Technical Assistance to Small- and Medium-Sized Formulators Interested in Certification

EPA should provide greater technical assistance to companies interested in pursuing Standard certification. Small- and medium-sized businesses with eligible products may lack the capacity of larger companies to support their certification efforts. Additional technical assistance could create a broader pool of participating formulators and help spur market development for green chemical alternatives.

E. Update the Citation for EPA's Authority to Conduct the Safer Choice Program

EPA should update the citation for its authority to conduct the Safer Choice program in the Foreword. EPA identifies as authority for the Safer Choice program Section 6604(b)(5) of the Pollution Prevention Act[28] and Section 102(2)(G) of the National Environmental Policy Act.[29] The June 2023 update to the National Environmental Policy Act has made the Agency's proposed citation to Section 102(2)(G) obsolete.[30] The correct citation is now to § 102(2)(J).

III. Comments on Substantive Portions of the Proposed Standard

A. General Requirements

Ensure Public Comment When the Agency Considers Entering a Product Class (3.4.1)

We recommend EPA require public comment when entering a product class. EPA proposes new language in this Standard allowing the Agency to solicit public input before entering a new product class to determine whether doing so would advance the Standard's goals.[31] We encourage EPA to instead require public comment before entering a new product class to improve transparency and improve the technical review process.

B. Product-Level Requirements

1. *Clarify Language in "Information to Help Reduce Carbon-Based Energy Consumption" (4.2.3.1)*

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[28] 42 USC § 13103(b)(5) ("As part of the strategy, the Administrator shall…facilitate the adoption of source reduction techniques by businesses.")
[29] 42 USC § 4332(2)(G) (to June 2, 2023) ("…all agencies of the Federal Government shall…make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment.").
[30] *See id*.
[31] *Proposed Standard*, *supra* note 1, at 10.

We suggest EPA only recognize formulators' substantial reductions in carbon-based energy use and consider eliminating the clause permitting recognition for formulators "pursuing other actions that lead to energy savings."[32] EPA proposes to add a section with information for partnering formulators about Agency programs that could help the formulator reduce their carbon-based energy use.[33] EPA may recognize partnering formulators that demonstrate "outstanding leadership and innovation in sustainable energy use."[34]

We recommend EPA limit recognition of partnering formulators to instances of substantial reductions in carbon-based energy consumption. Partnering formulators should be recognized for step-change improvements in sustainability that can benefit consumers—not incremental process improvements that primarily bolster the formulator's bottom line.

EPA should consider eliminating the clause permitting recognition for formulators "pursuing other actions that lead to energy savings."[35] At a minimum, this clause is vague and would be substantially improved by providing clearer criteria for qualifying actions.

2. *Revise Proposed Primary Packaging Requirements (4.2.5)*

EPA proposes to only certify products with primary packaging that complies with recyclability and recycled content requirements.[36] EPA proposes that "Packages must either be recyclable and be made of a certain percentage of recycled content per the FTC Green Guides or be designed to be reused."[37] EPA proposes 15% minimum post-consumer recycled content for plastic packaging, 25% for glass packaging, 50% for fiber, cardboard or paper packaging, and 30% for metal packaging.[38]

Below, our jurisdictions provide several related suggestions to strengthen the Standard's primary packaging provisions.

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[32] *Id*. at 17.
[33] *Id*.
[34] *Id*.
[35] *Id*. at 17.
[36] *Id*. at 18.
[37] *Id*. at 18. Our jurisdictions recommend EPA adopt the definition of recyclable outlined in State of California et al., *Comment from States of California, Connecticut, Delaware, Illinois, Maryland, Michigan, Minnesota, New Jersey, New Mexico, New York, Oregon, and Rhode Island, the Commonwealths of Massachusetts and Pennsylvania, and the District of Columbia*, https://www.regulations.gov/comment/FTC-2022-0077-0987, at 25-33 (Apr. 24, 2023) (recommending substantially more rigorous criteria for "recyclable" claims based on consumer protection, solid waste reduction, and circular economy development) [hereinafter *Multistate Comments on FTC Green Guides*].
[38] *Proposed Standard*, *supra* note 1, at 18.

(a) Do Not Certify Products with Plastic Primary Packaging.

We urge EPA to not certify products with plastic primary packaging, and to develop a phasedown plan for currently certified products with plastic primary packaging to encourage formulators to pursue non-plastic alternatives. We recognize that Safer Choice is an informed substitution program that encourages formulators to gradually shift toward safer chemical alternatives.[39] We also recognize that requiring previously certified products to eliminate plastic packaging immediately would defeat the point of the program—formulator participation—and may have unintended consequences.[40] Even so, Products with plastic primary packaging do not contain "the safest possible ingredients" and should not be Standard-certified.[41]

Plastic production utilizes thousands of potentially toxic chemicals as building blocks of the plastic material or as additives to provide attributes like color or flexibility.[42] More than 13,000 chemicals have been identified and associated with plastics and plastic manufacturing;[43] 3,200 of these chemicals have been identified as chemicals of potential concern based on their hazardous properties.[44] Many more have never been assessed and may also be toxic.[45] Many plastic-associated chemical additives are highly toxic and include carcinogens, neurotoxicants, and endocrine disrupters[46] such as phthalates, bisphenols, and PFAS.[47]

A plastic product can take decades to degrade once it becomes waste. Plastic often breaks down into smaller particles, called microplastics, that persist along with the original product's harmful chemical additives.[48] Chemicals released from

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[39] *See id.* At v.
[40] *Id.* (avoiding unintended consequences of switching away from particular chemicals).
[41] *Proposed Standard*, *supra* note 1, at vi.
[42] Philip J. Landrigan, *The Minderoo-Monaco Commission on Plastics and Human Health*, ANNALS OF GLOBAL HEALTH 89(1), 2 (2023), https://annalsofglobalhealth.org/articles/10.5334/aogh.4056.
[43] United Nations Env't Programme (UNEP), *Chemicals in plastics: A Technical Report*, 7 (2023), https://www.unep.org/resources/report/chemicals-plastics-technical-report [hereinafter UNEP, *Chemicals in Plastics*].
[44] Greenpeace, *Forever Toxic: The Science on Health Threats from Plastic Recycling*, 7 (2023), https://prod.greenpeaceusa.info/usa/wp-content/uploads/2023/05/GreenpeaceUSA_ForeverToxic_ENG.pdf [hereinafter Greenpeace, *Forever Toxic)*].
[45] UNEP, *Chemicals in Plastics*, *supra* note 44, at 2, 7; Greenpeace, *Forever Toxic, supra* note 45, at 7.
[46] Endocrine-disrupting chemicals mimic human hormones and impair the endocrine system. *See Toxic Loophole: Recycling Hazardous Waste Into New Products*, IPEN (2018), https://ipen.org/sites/default/files/documents/TL_brochure_web_final.pdf.
[47] Tatum McConnell, *Recycling plastics "extremely problematic" due to toxic chemical additives: Report*, ENV'T HEALTH NEWS (June 1, 2023), https://www.ehn.org/plastic-recycling-2660739413.html.
[48] *See, e.g.,* U.S. Nat'l Oceanic and Atmospheric Admin. and EPA, Interagency Marine Debris Coordinating Committee, *Report on Microfiber Pollution – 2022 Report to Congress: Draft for Public Comment,* 35–42; UNEP, *Chemicals in Plastics*, *supra* note 44, at 27.

plastics can exist in the environment for long periods of time, bioaccumulate in the tissues of plants and animals, and travel long distances through the air and water.[49]

Assuming plastic is recycled at all,[50] post-consumer plastic has its own concerns. Recycled plastic production can require additives to improve the quality of the plastic.[51] Some of these additives are more toxic than those used in virgin plastic production.[52] Toxics and contaminating wastes leach into plastic during all stages of its lifecycle, and these toxins are then recycled into new plastic.[53] Since primary packaging directly contacts the formulated product, consumers may be unexpectedly exposed to toxins.[54] Direct contact with toxins may also cause the product to perform differently than the formulator intended—or as EPA's technical review team predicted.[55]

Plastic primary packaging is inconsistent with a product containing "the safest possible ingredients" because its manufacture, use, and disposal expose consumers and the environment to known risks.[56] Our jurisdictions urge EPA to not certify products with plastic primary packaging and to develop a phasedown approach requiring partners with currently certified products move away from plastic primary packaging, in line with the Standard's informed substitution approach.

(b) Do Not Certify Products with Post-Consumer Recycled Plastic Generated by So-Called Advanced Recycling Technologies.

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[49] UNEP, *Chemicals in Plastics, supra* note 44, at 27; Center for Int'l Env't Law (CIEL), *Plastic and Human Health: A Lifecycle Approach to Plastic Pollution*, https://www.ciel.org/project-update/plastic-and-human-health-a-lifecycle-approach-to-plastic-pollution/ (last visited Jan. 15, 2024); CIEL, *Plastic and Health: The Hidden Costs of a Plastic Planet*, https://www.ciel.org/wp-content/uploads/2019/02/Plastic-and-Health-The-Hidden-Costs-of-a-Plastic-Planet-February-2019.pdf, at 62 (Feb. 2019).

[50] *See Multistate Comments on Draft National Strategy to Prevent Plastic Pollution*, *supra* note 7, at 25 (plastic is very unlikely to be recycled); *Proposed Standard*, *supra* note 1, at v (Safer Choice considers product lifecycle).

[51] April Reese, *Demand for Recycled Plastic in Packaging is Growing. So Are Concerns About Potential Health Risks.* Packaging Dive, (June 26, 2023) https://www.packagingdive.com/news/plastic-health-recycling-united-nations-greenpeace-bpa/653268/.

[52] *Id.*

[53] Greenpeace, *Forever Toxic*, *supra* note 45, at 4; Reese, *Demand for Recycled Plastic in Packaging is Growing. So Are Concerns About Potential Health Risks*, *supra* note 52.

[54] *Proposed Standard*, *supra* note 1, at 7 ("Primary packaging: A container or separable material component in direct contact with the formulated product.")

[55] *Id.* at 7 ("Primary packaging: A container or separable material component in direct contact with the formulated product.")

[56] *Id.* at vi; *see* discussion *supra* Part II.A for importance of EPA taking a cradle-to-grave approach to product lifecycle analysis.

Even if EPA decides to certify products with primary packaging containing post-consumer recycled plastic, the Agency should not certify any primary packaging with post-consumer plastic generated by advanced recycling technologies. Mechanical recycling, while imperfect, has plastic material retention yields of 73-84%.[57] The majority of material mechanically recycled is turned into usable plastic for recycling.[58] Higher material retention rates reduce the need for virgin plastic production and its attendant impacts.

By contrast, advanced recycling,[59] which includes gasification, pyrolysis, chemical depolymerization, and other, emerging techniques,[60] produces comparatively poor material yields while generating significantly greater environmental externalities. A recent U.S. Department of Energy study found pyrolysis and gasification recycling techniques retain between 1-14% of material.[61] Chemical depolymerization and most other solvent-based recycling techniques had worse material retention rates than mechanical recycling.[62]

Products with post-consumer plastic primary packaging generated by advanced recycling do not contain "the safest possible ingredients."[63] Advanced recycling produces markedly more greenhouse gases and toxic byproducts than does mechanical recycling.[64] Almost all advanced recycling technologies generate large quantities of hazardous waste, involve storing or releasing hazardous chemicals

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[57] *Multistate Comments on Draft National Strategy to Prevent Plastic Pollution*, *supra* note 7, at 20 (citing Uekert, Taylor, *Technical, Economic, and Environmental Comparison of Closed Loop Recycling Technologies for Common Plastics*, American Chemical Society, 969 (2023)).
[58] *Id.* at 20.
[59] Advanced recycling is also called chemical recycling.
[60] America's Plastic Makers, *Advanced Recycling: Remaking Plastics to Meet Sustainability Goals,* (July 2022), https://plasticmakers.org/wp-content/uploads/2022/07/Advanced-Recycling-Explainer-032023.pdf, at 3 (advanced recycling includes pyrolysis, gasification, and depolymerization); Jennifer McDermott, *Advanced Recycling: Plastic Crisis Solution or Distraction?* ASSOCIATED PRESS, https://apnews.com/article/science-united-states-providence-business-climate-and-environment-b9f202a703ea7fa4231053d544b3266e (Oct. 21, 2022) (same); Veena Singla, *Recycling Lies: 'Chemical Recycling' of Plastic is Just Greenwashing Incineration*, Natural Resources Defense Council, https://www.nrdc.org/sites/default/files/chemical-recycling-greenwashing-incineration-ib.pdf, at 2 (Feb. 2022) (same).
[61] Uekert, Taylor, *Technical, Economic, and Environmental Comparison of Closed Loop Recycling Technologies for Common Plastics*, American Chemical Society, 969 (2023); *see also* Andrew Rollinson & Jumoke Oladejo, *Chemical Recycling: Status, Sustainability, and Environmental Impacts,* Global Alliance for Incinerator Alternatives, (2020), https://www.noburn.org/wp-content/uploads/CR-Technical-Assessment_June-2020.pdf, at 30 (finding that with "chemical recycling" "very little of the original material can return to the economy as new plastic.")
[62] Uekert, *Technical, Economic, and Environmental Comparison of Closed Loop Recycling Technologies for Common Plastics*, *supra* note 62, at 974.
[63] *Proposed Standard*, *supra* note 1, at vi.
[64] Veena Singla, *Recycling Lies: 'Chemical Recycling' of Plastic is Just Greenwashing Incineration,* , *supra* note 61, at 2. *See* discussion *supra* Part II.A about the importance of holistic, thorough, lifecycle analysis.

from the recycling facility, and have similar end-product contamination risks to mechanically recycled post-consumer plastic.[65]

(c) Develop an In-House Recycled Content Certification Process.

Relatedly, EPA should consider developing an in-house recycled content certification standard, instead of relying on third party certification bodies. The Agency suggests partnering formulators can certify their post-consumer recycled plastic content with programs like GreenBlue's Recycled Material Standard.[66] We disagree. EPA should not single out third-party recycled content certification programs, as this opens the door to industry-led certification programs that raise a raft of transparency and conflict of interest concerns. Instead, we recommend EPA develop its own certification process, which would improve transparency and public access to information around the contents of post-consumer plastics.[67] Developing a national certification process would also demonstrate EPA's leadership on recycling and managing plastic waste, in line with the Agency's Draft National Strategy.[68]

(d) Do Not Certify Products with Single-Use Plastic Primary Packaging.

Regardless of how EPA decides to proceed with requirements for recyclability or recycled content for plastic primary packaging, we urge EPA not to certify products with *single-use* plastic for primary packaging. The federal government is actively looking to reduce its single-use plastic consumption.[69] Single-use plastics account for one-third of all plastic produced and are the primary component of the global plastic waste crisis.[70] Given the wealth of evidence concerning the public and environmental health risks of mismanaged plastic waste, and given EPA is developing a strategy to reduce single-use plastic

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[65] Singla, *Recycling Lies: 'Chemical Recycling' of Plastic is Just Greenwashing Incineration,* , *supra* note 61, at 2.
[66] *Proposed Standard*, *supra* note 1, at 18.
[67] *See* discussion *supra* Part II.B about importance of greater transparency around Safer Choice program.
[68] EPA, *Draft National Strategy to Prevent Plastic Pollution*, *supra* note 16, at 5 ("The United States plays a critical role in reducing global plastic pollution as a major global plastic producer and plastic waste generator.")
[69] District of Columbia et al., *Comments on Advance Notice of Proposed Rulemaking on Reducing Single-Use Plastics*, (September 6, 2022), https://www.regulations.gov/comment/GSA-GSAR-2022-0014-1276, at 3; *see also* Dep't of the Interior ("DOI"), Order No. 3407, *Department-Wide Approach to Reducing Plastic Pollution*, (June 8, 2022), https://www.doi.gov/sites/doi.gov/files/elips/documents/so-3407.pdf.
[70] Dominic Charles and Laurent Kimman, *Plastic Waste Makers Index 2023,* Minderoo Foundation (February 2023), https://cdn.minderoo.org/content/uploads/2023/02/04205527/Plastic-Waste-Makers-Index-2023.pdf, at 17.

waste, it would be contrary to EPA's own efforts to certify products with single-use plastic packaging components.[71]

(e) Adopt Higher Post-Consumer Content Requirements for Products with Metal Primary Packaging.

EPA should consider adopting more ambitious post-consumer recycled metal content requirements. EPA's proposed target of 30% post-consumer recycled metal content for primary packaging can be raised without issue, given the near-infinite recyclability of key metal components like steel and aluminum.[72] EPA should consider developing metals-specific targets, with higher recycled content requirements for primary packaging with steel or aluminum, for example, and lower percentage requirements for primary packaging made with harder-to-recycle metals.

(f) Adopt Higher Post-Consumer Content Requirements for Products with Glass Primary Packaging.

Along similar lines, EPA should consider a post-consumer recycled glass content requirement above 50%. The proposed 25% content requirement is below the national average glass recycling rate of approximately 31%.[73] Glass is highly recyclable[74] and there are existing, commercial markets for recycled glass.[75] Recycled glass also reduces greenhouse gas emissions and energy demand during glass production.[76] EPA should further spur recycled glass market creation by setting a more ambitious recycled content requirement for Standard certification.

(g) Modify "Designed to be Reused" Clause to Genuinely Encourage Reuse.

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[71] *See* discussion *supra* Part III.B.2.(a),(b) for review of plastics-related health risks; EPA, *Draft National Strategy to Prevent Plastic Pollution*, *supra* note 16, at 17 (EPA objective to "Reduce the production and consumption of single-use, unrecyclable, or frequently littered plastic products").
[72] American Iron and Steel Inst., *Sustainability in Steel Recycling* (Sept. 2020), *https://www.steel.org/wp-content/uploads/2020/09/Steel-Sustains-in-Recyclability-Fact-Sheet.pdf* (Steel is 100 percent recyclable, which means it can be recycled into the same material of the same quality again and again."); Int'l Aluminium, *Recycling,* https://international-aluminium.org/work_areas/recycling/ (last visited Jan. 11, 2024) ("Aluminium can be recycled over and over again without any loss of quality. Aluminium is one of the most recycled materials on earth.")
[73] EPA, *Glass: Material-Specific Data,* https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/glass-material-specific-data (last visited Jan. 11, 2024).
[74] Glass Packaging Institute, *Glass Container Recycling Loop,* https://www.gpi.org/glass-recycling-facts (last visited Jan. 11, 2024) ("Glass is 100% recyclable and can be recycled endlessly without loss in quality or purity.").
[75] Katie Pyzyk, *After Years of Pressure, Glass Recycling May Be At a Turning Point,* WASTE DIVE, (Jan. 27, 2021), https://www.wastedive.com/news/glass-recycling-mrf-turning-point/593110/.
[76] *Id.; see* discussion *supra* Part II.A about value of holistic lifecycle analysis.

EPA should consider modifying the clause "or be designed to be reused" to better ensure the primary packaging is *actually* reused.[77] Under this clause, as written, a formulator would only have to design primary packaging for reuse. This is akin to plastics producers claiming an item is recyclable if it is technically capable of being recycled.[78] There is no proposed mechanism in the Standard to ensure formulators have created packaging that can and will actually be reused, either with an in-house system for reuse or with third party refillers. In practice, this loophole is likely to undercut the Standard's goal of sustainable packaging development, and will provide formulators with an enormous, catch-all provision to use primary packaging without post-consumer recycled content.

Instead, we recommend language like "or be designed to be compatible with a demonstrated system of reusability." This revision would ensure partnering formulators have developed and demonstrated the infrastructure necessary for consumers to actually reuse their primary packaging. This change, too, would align with EPA and our jurisdictions' mutual goal to develop a more circular economy.[79]

3. Clarify Yellow-Triangle Ingredient Limitation (4.2.8)

We recommend EPA clarify whether EPA's proposal to limit yellow triangle ingredients to only 10% of the product as sold is based on a product's weight or volume.[80] **We also suggest EPA clarify why it has chosen a 10% threshold, when lower thresholds could be more protective of public health.** Yellow triangle designation means a chemical "has met Safer Choice Criteria for its functional ingredient-class, but has some hazard profile issues."[81] Yellow triangle chemicals are "not associated with a low level of hazard concern for all human health and environmental endpoints."[82] Clarification by EPA on these two points would help formulators comply with the Standard's requirements and could encourage the development of products with "the safest possible ingredients."[83]

C. Component-Specific Requirements

1. Limit Certification for Products with Hazardous Chemicals (5.2.1-4)

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[77] *Proposed Standard*, *supra* note 1, at 18.
[78] *Multistate Comments on FTC Green Guides*, *supra* note 38, at 26.
[79] EPA, *Draft National Strategy to Prevent Plastic Pollution*, , *supra* note 16, at 1.
[80] *Proposed Standard*, *supra* note 1, at 19.
[81] EPA, *Safer Chemical Ingredient List,* https://www.epa.gov/saferchoice/safer-ingredients#:~:text=Yellow%20triangle%20%2D%20The%20chemical%20has,human%20health%20and%20environmental%20endpoints (last visited Jan. 11, 2024).
[82] *Id.*
[83] *Proposed Standard*, *supra* note 1, at vi.

EPA should not certify products containing hazardous air pollutants (HAPs), Toxic Release Inventory (TRI)-listed chemicals, known carcinogens, mutagens, and reproductive toxicants.[84] EPA proposes to allow certification of products containing the aforementioned pollutants and toxins so long as they "meet the Safer Choice criteria" or are "exempted based on properties that do not pertain to certified products."[85] Products that contain HAPs, TRI-listed chemicals, known carcinogens, mutagens, or reproductive toxicants, by definition, do not contain "the safest possible ingredients."[86] Certifying those products would be antithetical to the stated purpose of the Safer Choice standard.

EPA could consider allowing products with pollutants and toxins that have been found to not cause harm at de minimis levels.[87] EPA may also need to take a phasedown approach to already-certified products containing HAPs, TRI-listed chemicals, carcinogens, mutagens, or reproductive toxicants to encourage formulators to move away from these chemicals in their products.

2. *Modify Disposable Wipes Portions of the Proposed Standard (5.11)*

Regarding disposable wipes, EPA proposes to require (1) that certified wipe products (1) "prominently" display the "Do Not Flush" symbol and language, and (2) that any "compostable" or "biodegradable" claims comply with the FTC Green Guides.[88] EPA also proposes to certify wipes that consist of "synthetic fibers from renewable sources with the same biodegradability profile [as natural fibers such as cotton or bamboo.]"[89]

Our jurisdictions have several suggestions to strengthen the Standard's disposable wipes provisions.

(a) Define the Disposable Wipes Covered.

We suggest EPA define the types of disposable wipes covered by the Standard. Typically, household disposable wipes are nonwoven textiles that are sold in a wet state in a liquid formulated for the intended application, most commonly diapering, personal hygiene, or household cleaning or disinfection

[84] *Id.* at 23-24.
[85] *Id.* at 23.
[86] *Id.* at vi.
[87] This would exclude PFAS, for example, which has been found by EPA to be harmful to human health even at exceedingly small concentrations. *See*, *e.g.*, EPA, *Per- and Polyfluoroalkyl Substances (PFAS),* https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas (last visited Jan. 11, 2024) (Agency proposal to set drinking water standards for some PFAS at 4.0 parts per trillion).
[88] *Proposed Standard*, *supra* note 1, at 27.
[89] *Id.*

purposes.[90] It is not clear the extent to which EPA intends to cover wet disposable wipes used by commercial entities, such as food service or transportation applications.[91] To the extent the Standard covers such products as well as household products, EPA should clarify that intent in its definition of "disposable wipes" and evaluate whether separate requirements should apply to each.

(b) Consider State "Do Not Flush" Labeling Laws in Developing Such Requirements Under the Standard.

EPA should consider adopting the rigorous "Do Not Flush" labeling requirements many States already have in place to ensure that the Standard's labeling approach is as effective as possible in reducing harms from flushed wipes. We strongly support EPA's proposal to require "Do Not Flush" labeling on certified wipes. Consumption of disposable wipes is growing rapidly[92] and consumers' flushing of wipes is harming the Nation's wastewater infrastructure and waters. Flushed wipes are estimated to add $441 million a year in collection-system-related operating costs at U.S. water utilities.[93] Those costs result from the failure of wipes to breakdown and disperse adequately, creating blockages that damage pumps and treatment infrastructure, disrupt microbial treatment processes, and cause combined sewer overflows that discharge untreated sewage—including the wipes themselves—to natural waters.[94] Such blockages are occurring regardless of whether the wipe consists of natural or synthetic fibers or is

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[90] Tilda Hadley, *Flushed But Not Forgotten: The Rising Costs and Opportunities of Disposable Wet Wipes*, BIORESOURCES, 18(1) 2271, 2271-72 (2023), https://bioresources.cnr.ncsu.edu/resources/flushed-but-not-forgotten-the-rising-costs-and-opportunities-of-disposable-wet-wipes/#:~:text=Improper%20disposal%20or%20.

[91] *See* European Disposables & Nonwovens Ass'n (EDANA), *Industrial Wipes*, https://www.edana.org/nw-related-industry/nonwovens-in-daily-life/wipes/industrial-wipes (last visited Jan. 8, 2024) (categorizing industrial wipes).

[92] Joy Steed & Smithers Pira, *Four trends shaping the future of nonwoven wipe demand*, NONWOVENS INDUSTRY (Apr. 12, 2018), https://www.nonwovens-industry.com/issues/2018-4/view_features/four-trends-shaping-the-future-of-nonwoven-wipe-demand/. (projecting production of 1.36 million tons of wipes in 2023, reflecting an annual growth rate of 6.3% from 2018, and a global value of $2.84 billion).

[93] National Association of Clean Water Agencies (NACWA), *The Cost of Wipes On America's Clean Water Utilities*, 5 (Sept. 2020), *https://www.nacwa.org/docs/default-source/resources---public/govaff-3-cost_of_wipes-1.pdf*; *id.* at 2-3 (noting that this figure is conservative as it considers only operating costs, and not capital costs, from collection system impacts, and no costs related to damage to wastewater treatment infrastructure, the lateral connections from homes and businesses to collection systems, on-site septic systems, or the environment). These costs are concentrated in coastal states and heavily populated industrial sections of the Midwest where wastewater is more likely to be treated through such systems. *Id.* at 5.

[94] Thomas Allison, *Do flushed biodegradable wet wipes really degrade?*, SCIENCE OF THE TOTAL ENVT., 2, 9 (2023), *https://www.sciencedirect.com/science/article/abs/pii/S0048969723035350?via%3Dihub*; NACWA, *The Cost of Wipes On America's Clean Water Utilities*, supra note 94, at 1-3.

labeled as "flushable."[95] Even where wipes reach a sewer system's treatment facilities, because many wipes, in particular those containing synthetic fibers, do not fully biodegrade during that treatment, flushed wipes are a significant source of microfibers, including microplastics, to receiving waters.[96]

As a result, numerous States, including many of the undersigned, already require "Do Not Flush" labeling or are in the process of developing such statutory requirements for disposable wipes sold within their jurisdictions.[97] We suggest EPA consider adopting the approaches that States are already taking to ensure that such labeling is not only "prominent[]," as EPA proposes, but as effective as possible, including by requiring that the "Do Not Flush" symbol and the statement "Do Not Flush" appear in high contrast on the principal display panel and are visible each time a wipe is dispensed, with the exact locations and dimensions of the labeling specified based upon the size, shape, and type of the packaging.[98]

(c) Only Certify Wipes that Can Pass Rigorous Flushability Criteria.

EPA should continue to require that all certified wipes be actually flushable without damaging wastewater systems. The Standard currently requires certified wipes to be either compostable or flushable.[99] In its proposed revisions, EPA appears to have added the "Do Not Flush" labeling requirement to address the flushability issue. But even with such labeling, and despite significant education efforts made by state and local governments, it is likely that consumers

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[95] Anum Khan, *Defining 'Flushability' for Sewer Use*, 7-8 (Mar. 31, 2019) (none of the disposable wipe products tested, including 18 types of baby wipes, 14 types of cleaning wipes, and 32 types of cleansing wipes, including those labeled as "flushable," disintegrated enough to meet the criteria for passage through the sewer system without risk of clogging or damaging infrastructure.), https://www.torontomu.ca/content/dam/water/Research/FinalReport-Flushables April1.pdf.

[96] Thomas Allison, *Do flushed biodegradable wet wipes really degrade?*, *supra* note 95, at2-3, 5, 9, 11; Tilda Hadley, *Flushed But Not Forgotten: The Rising Costs and Opportunities of Disposable Wet Wipes*, *supra* note 91,at 2276.

[97] California, Colorado, Illinois, Oregon, and Washington currently have "Do Not Flush" labeling requirements. *See* CAL. PUB. RES. CODE, §§ 49650-49654; COLO. REV. STAT. §§ 25-18.9-101-105; OR. REV. STAT. §§ 646.540-.544; ILL. COMP. STAT. 165/1-165/99; WASH.REV. CODE § 70A.525. Bills are pending in Massachusetts and New Jersey to require similar labeling and in Hawaii and New York to prohibit the sale of wipes labeled as "flushable." *See* https://trackbill.com/bill/massachusetts-senate-bill-480-an-act-protecting-wastewater-and-sewerage-systems-through-the-labeling-of-non-flushable-wipes/2393079/; https://www.capitol.hawaii.gov /sessions/session2023/bills/HB268_HD1_.HTM#:~:text=(a)%20Beginning%20%2C%20%2C%20it,remedies%20provided%20by%20this%20chapter.; https://www.njleg.state.nj.us/bill-search/2022/S3632; https://www.nysenate.gov/legislation/bills/2021/S9105 (all last visited Jan. 15, 2024).

[98] *See* CAL. PUB. RES. CODE, § 49651; OR. REV. STAT. § 646.540; ILL. COMP. STAT. 165/15; WASH. REV. CODE § 70A.525.020.

[99] EPA, *EPA's Safer Choice Standard (formerly, the 'DfE Standard for Safer Products')*, https://www.epa.gov/system/files/documents/2023-11/epas-safer-choice-standard-november-2023.pdf, at 21 (Feb. 2015) [hereinafter *Current Standard*].

will continue to flush wipes,[100] particularly those used in and around bathrooms. This risk is exacerbated by the proliferation of labeling claiming that disposable wipes are made of materials that are "compostable," "biodegradable," or "100% plant-based,"[101] and adding the "Safer Choice" label to certified products may contribute to these problems. Our jurisdictions thus urge EPA to make compliance with the flushability specifications developed by the International Water Services Flushability Group (IWSFG) (an organization consisting of water associations, utilities, and professionals), as a prerequisite to certification.[102] Notably, the IWSFG specifications evaluate the breakdown of wipes under conditions that are prevalent in wastewater treatment systems and are consistent with the 2016 International Water Industry Statement on Flushability that has been signed by 30 nations and over 250 water organizations worldwide.[103]

(d) Do Not Certify Wipes Made with Plastic Fibers.

Our jurisdictions recommend EPA not certify disposable wipe products that contain plastic fibers. We urge EPA to add to its description of

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[100] *See* Tilda Hadley, *Flushed But Not Forgotten: The Rising Costs and Opportunities of Disposable Wet Wipes*, *supra* note 91, at 2279 (noting that once "responsible flushing" public education campaigns end they are often no longer effective in influencing consumer behavior).

[101] *See* Robert A. Villée, *Bet You Didn't Know Your Baby Wipes are Plastic?*, KEYSTONE WATER QUALITY MANAGER, 3rd Quarter, 30-31 (2019), https://www.iwsfg.org/wp-content/uploads/2020/07/KWQM-3rd-Quarter-2019-Baby-Wipe-Article.pdf.

[102] Int'l Wastewater Services Flushability Grp. (IWSFG), *IWSFG Flushability Specifications*, https://www.iwsfg.org/iwsfg-flushability-specification/ (last visited Jan. 12, 2024). Alternatively, while less protective and not the preferred course of the States, EPA could impose this requirement only for the wipe products most likely to be flushed by consumers, such as those likely to be used in or around bathrooms. *See, e.g.*, IWSFG, *IWSFG (PAS) 1: 2020 – Criteria for Recognition as a Flushable Product*, § 3, at 7 (2020), https://www.iwsfg.org/wp-content/uploads/2021/06/IWSFG-PAS-1-Criteria-for-Recognition-as-a-Flushable-Product-2.pdf, [hereinafter *IWSFG Flushability Specifications*] (applying to all products which "[b]ecause of the location of their use in the toilet or bathroom or likely contamination by human excreta are likely to be flushed through a toilet into a drain line and wastewater transport and treatment system"); CAL. PUB. RES. CODE, § 49650(b)(2)(B) (applying to any wipe "[l]ikely to be used in a bathroom and has significant potential to be flushed, including baby wipes, bathroom cleaning wipes, toilet cleaning wipes, hard surface cleaning wipes, disinfecting wipes, hand sanitizing wipes, antibacterial wipes, facial and makeup removal wipes, general purpose cleaning wipes, personal care wipes for use on the body, feminine hygiene wipes, adult incontinence wipes, adult hygiene wipes, and body cleansing wipes").

[103] Tilda Hadley, *Flushed But Not Forgotten: The Rising Costs and Opportunities of Disposable Wet Wipes*, *supra* note 91, at 2278-79; Robert A. Villée, *Bet You Didn't Know Your Baby Wipes are Plastic?*, *supra* note 102, at 31-32. As such, the IWSFG specifications are more appropriate for use in the Safer Choice program than the nonwoven fabric industry standard referenced in the current Standard. *See Current Standard*, *supra* note 100, at 21-22.

"qualifying wipes" a clear statement that any product containing such fibers shall not qualify for certification.[104]

Currently, most wipes consist largely of petroleum-based plastic fibers, mainly polyethylene terephthalate (PET) and polypropylene (PP), despite increased marketing of such products as "natural" or "biodegradable."[105] Wipes made of plastic fibers are in essence single-use plastics, and such products have no place in the Safer Choice program given the myriad serious environmental and health harms posed by the production, use, and disposal of such plastics, including the wastewater system harms caused by their lack of degradability.[106] Moreover, a clear prohibition against certifying plastic-containing wipes would further the Safer Choice program's informed substitution goal by discouraging manufacturers from attempting to "greenwash" their products by adding "plant-based" fibers, both synthetic and natural,[107] without eliminating plastic fiber content. Indeed, recognizing the harms caused by wipes containing plastic fibers, the IWSFG will not certify as flushable any wipe containing greater than 1% plastic by weight or any wipe into which plastic has been intentionally introduced.[108] EPA should take a similar approach under the Standard.

(e) Do Not Certify Wipes Made with Chemically Regenerated Cellulose Fibers.

Our jurisdictions also recommend that EPA not certify at this time wipes that contain chemically regenerated cellulose fibers. EPA specifically seeks comment on its proposal to revise the existing Standard to allow wipes made not just from "readily compostable" natural fibers, but also "compostable synthetic fibers from renewable sources."[109] As proposed, EPA would include as "qualifying wipes" those made from "synthetic fibers from renewable sources with the same biodegradability profile [as natural fibers such as cotton or bamboo]" as long as those materials "can be composted in an industrial composting facility, as

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[104] *Proposed Standard*, *supra* note 1, at 27. EPA should include in this prohibition wipes made from so-called "bioplastic" fibers, which pose the same concerns related to inadequate physical and biological degradation in wastewater treatment and natural environments, microplastic pollution, and risk of consumer confusion. *See* Oceana, *Recycling Myth of the Month: Plant-based bioplastics are not as 'green' as some think* (July 1, 2020), https://oceana.org/blog/recycling-myth-month-plant-based-bioplastics-are-not-green-some-think/ (last visited Jan. 15, 2024). While not currently a common ingredient in wipes, manufacturers are marketing "sustainable" wipes made of bioplastics, such as "polylactic acid" or "PLA." *See, e.g.*, GreenJoy, *PLA Nonwoven Cleaning Wipes – An Eco-Friendly Alternative to Traditional Cleaning Wipes*, https://www.bionONwoven.com/cleaning/cleaning-wipes/pla-nonwoven-cleaning-wipes.html (last visited Jan. 15, 2024).

[105] Thomas Allison, *Do flushed biodegradable wet wipes really degrade?*, *supra* note 95, at 2, 3; Robert A. Villée, *Bet You Didn't Know Your Baby Wipes are Plastic?*, *supra* note 102, at 28.

[106] *See* discussion *supra* Part III.B.2.(a).

[107] *See* Robert A. Villée, *Bet You Didn't Know Your Baby Wipes are Plastic?* , *supra* note 102, at 30-31.

[108] IWSFG, *IWSFG Flushability Specifications*, *supra* note 103, at § 7.1 at 9.

[109] *Preamble to Proposed Standard*, *supra* note 2, at 6.

demonstrated by a certificate of analysis (or similar means) and appropriate testing."[110] Although EPA does not identify any particular "synthetic fibers from renewable sources" that might qualify, chemically regenerated cellulose fibers, such as viscose and lyocell, which are increasingly prevalent in many wipes,[111] would seem to be included.

We have several concerns about the certification of disposable wipes consisting of chemically regenerated cellulose. It is unclear whether such products will adequately degrade physically, much less biodegrade molecularly, in the conditions present in wastewater treatment or natural environments.[112] For example, regenerated cellulose fibers like viscose are longer than natural wood pulp fibers, making them more resistant to physical and chemical degradation processes, and the various chemicals, such as binders, added to the wipes may further impede their degradation.[113] In addition, existing standard test methods for compostability—such as the ones EPA suggests could be used to demonstrate a synthetic wipe's "biodegradability profile"—are focused on industrial composting conditions.[114] But those conditions are not representative of the temperature or microbial levels present in the marine or freshwater natural environments in which flushed wipes and their microfibers ultimately end up.[115] Moreover, the viscose fiber manufacturing industry is one of the world's largest users and emitters of carbon disulfide, which is known to cause cardiovascular, endocrinal, and reproductive harms, among others.[116] For these reasons, we submit that it is not appropriate for EPA to provide certification to these products at this time.

(f) Do Not Permit Wipes that Employ Dubious "Compostable" or "Biodegradable" Claims to Enter or Remain in the Safer Choice program.

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[110] *Proposed Standard*, *supra* note 1, at 27.
[111] *See* Thomas Allison, *Do flushed biodegradable wet wipes really degrade?*, *supra* note 95, at 2, 3; Robert A. Villée, *Bet You Didn't Know Your Baby Wipes are Plastic?* , *supra* note 102, at 30-31.
[112] Thomas Allison, *Do flushed biodegradable wet wipes really degrade?*, *supra* note 95, at 5-6 (noting that "cellulose-based wipes biodegradation is influenced by their manufacturing processes and chemical properties" and that "no studies … have properly assessed the fate impact of cellulose-based fibers across their entire lifecycle"); 11 (concluding that, after assessing likely aquatic degradation mechanisms for cellulosic wet wipes, including biochemical microbial degradation, such products face "limited molecular breakdown").
[113] *Id.* At 4; Tilda Hadley, *Flushed But Not Forgotten: The Rising Costs and Opportunities of Disposable Wet Wipes*, *supra* note 91, at 2272.
[114] *Proposed Standard* at 27 (identifying EN13432, ASTM 6400, ASTM 5338, ISO 14855 as "acceptable tests" for compostability).
[115] Thomas Allison, *Do flushed biodegradable wet wipes really degrade?*, *supra* note 95, at 6; Robert A. Villée, *Bet You Didn't Know Your Baby Wipes are Plastic?* , *supra* note 102, at 31.
[116] *See, e.g.*, Deepanhan Majumdar, et al., *Carbon disulphide and hydrogen sulphide emissions from viscose fibre manufacturing industry: A case study in India*, ATMOSPHERIC ENVIRONMENT, 13 (100157), 1-2 (2022), https://www.sciencedirect.com/science/article/pii/S2590162122000119?Via%3Dihub.

EPA should be diligent in evaluating claims that certified wipes are "compostable" or "biodegradable." We applaud EPA's proposed revision to the Standard to require that any labels claiming wipes are "compostable" or "biodegradable" must comply with the FTC's Green Guides.[117] But in light of EPA's explicit recognition that "many composting facilities do not accept disposable wipes,"[118] we encourage EPA to diligently monitor products that it has certified, or that are seeking certification, for compostability claims that are not accompanied by a prominent disclaimer disclosing the limited number of facilities that will accept disposable wipes.[119] Similar issues exist for claims of "biodegradability," given the current lack of evidence regarding the extent to which chemically regenerated cellulose fibers will biodegrade in natural or wastewater environments.[120]

3. *Do Not Certify Products with Compounds Exceeding the Proposed Residuals Limit (5.12)*

Do not certify products containing compounds that exceed the residuals limit set forth in the Standard.[121] EPA's proposal to require that "residuals of concern" must meet any more restrictive, health protective limits required under other federal regulations authorities simply underscores already existing regulatory requirements for such compounds or products. EPA should not at the same time allow manufacturers to avoid the Standard's limit <0.01% of formulation limit by showing mere "good faith efforts" when one or more compounds contained in a product cannot meet that limits.[122] At the very least, EPA should require manufacturers to show that compliance is not feasible from a technical perspective and that no safer substitute exists for the compound at issue. Further, EPA should seek public comment on any compounds or residuals that it determines will qualify for such an exception.[123]

IV. Conclusion

Our jurisdictions support the Safer Choice program because it incentivizes green chemical alternatives and informs consumers of the safest, most sustainable

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[117] *Proposed Standard*, *supra* note 1, at 27.
[118] *Id.*
[119] *See Multistate Comments on FTC Green Guides*, *supra* note 38, at 24 (Green Guides should provide that it is "deceptive to market or advertise a product or packaging as 'compostable in an industrial composting facility' if it is an accepted item at less than 60% of industrial composting facilities in the geographic area where it is being sold.").
[120] Thomas Allison, *Do flushed biodegradable wet wipes really degrade?*, *supra* note 95, at 5-6, 11; Tilda Hadley, *Flushed But Not Forgotten: The Rising Costs and Opportunities of Disposable Wet Wipes*, *supra* note 91, at 2272.
[121] *Proposed Standard*, *supra* note 1, at 27.
[122] *Id.*
[123] *Id.* (noting that "EPA will identify, on a case-by-case basis, the compounds and residuals that will qualify for this exception.")

products available. We encourage EPA to adopt our recommendations to ensure that the Standard is even more effective in protecting public health and the environment in our jurisdictions and across the nation.

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