

Resilient Flooring Covering Institute

Attached please find comments of the Resilient Floor Covering Institute on the Department of Ecology's proposed rule in connection with the Safer Products for Washington program. We also submitted these comments today through Ecology's online portal.

Please let us know if you have any questions.

Thank you



February 3, 2023

Submitted via e-mail to SaferProductsWA@ecy.wa.gov

Hazardous Waste and Toxics Reduction Program
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7696

Re: Comments of the Resilient Floor Covering Institute (“RFCI”) on the Safer Products for Washington Priority Consumer Products Proposed Rule

To whom it may concern:

The Resilient Floor Covering Institute (“RFCI”) submits these comments to the State of Washington Department of Ecology (“Ecology” or the “Department”) on Ecology’s proposal for a new chapter 173-337 of the Washington Administrative Code, to be titled “Safer Products Restrictions and Reporting” (the “Proposed Rule”) issued on December 7, 2022.¹ RFCI appreciates the opportunity to comment on the Proposed Rule and to continue its participation in the rulemaking process for the Safer Products for Washington (“SPW”) program.

RFCI represents the interests of the resilient floor covering industry. Virtually all RFCI flooring manufacturing members produce vinyl flooring, and RFCI associate members provide raw materials and sundry products for the manufacture and use of vinyl flooring. Resilient flooring is a top consumer choice for hard surface flooring, and in recent years the product category—in particular, luxury vinyl tile (“LVT”)—has seen tremendous growth² as consumers opt for the sustainability, durability, and aesthetics of this flooring option.

RFCI has long been an advocate of sustainable product selection and sustainable building practices based on life-cycle assessment, sound science, and risk assessments. RFCI and its

¹ Available online at <https://ecology.wa.gov/DOE/files/34/34868dd6-a7ea-4944-814f-010df10dde99.pdf> (current as of February 3, 2023).

² See, e.g., Verified Market Research, *Global Luxury Vinyl Tile-LVT Market Size By Type (Rigid, Flexible), By End-Use Sector (Residential, Non-Residential), By Geographic Scope and Forecast*, Report ID 25815 (Sep. 2022), available online at <https://www.verifiedmarketresearch.com/product/luxury-vinyl-tile-lvt-market/> (LVT market valued at \$16.11 billion in 2020, projected to reach \$37.92 billion by 2028) (current as of February 3, 2023); see also MarketsandMarkets Research, *Luxury Vinyl Tiles (LVT) Flooring Market by Type (Rigid, Flexible), End-Use Sector (Residential, Non-residential), and Region (North America, Asia Pacific, Europe, Middle East & Africa, and South America) – Global Forecast to 2024*, available online at <https://www.marketsandmarkets.com/Market-Reports/lvt-flooring-market-105150640.html> (current as of February 3, 2023).

members therefore appreciate Ecology’s goals in developing and implementing the SPW program under the Pollution Prevention for Healthy People and Puget Sound Act of 2019 (the “Act”).³

As it relates to the presence of ortho-phthalates in vinyl flooring, the Proposed Rule is substantively the same as the preliminary draft rule language Ecology released in August 2022. Accordingly, RFCI reiterates and incorporates by reference the comments submitted by RFCI to Ecology on August 31, 2022 in response to the preliminary draft rule language,⁴ as well as the comments submitted by RFCI to Ecology on January 28, 2022 on the Department’s Draft Regulatory Determinations Report to Legislature.⁵ As noted in those prior comments, RFCI believes that the overwhelming shift away from the use of ortho-phthalates in new vinyl flooring products that has occurred over the past decade renders regulatory restrictions for this particular priority product unnecessary and a misdirected use of critical and limited agency resources. Industry’s voluntary shift has removed any perceived risk associated with the presence of ortho-phthalates in vinyl flooring and has been acknowledged even by the consumer advocacy group that led the public outcry regarding perceived health risks of vinyl flooring manufactured with ortho-phthalates.⁶ RFCI maintains that Ecology should focus any regulatory requirements on priority products that present an ongoing risk to consumers or the environment and that continue to be manufactured on a regular basis and broad scale.

RFCI further reiterates that any restrictions imposed on vinyl flooring—as with all restrictions adopted under this novel regulatory program—be based on sound science, practically achievable, and designed to position the Act and its implementing regulations as a meaningful and useful consumer benefit. Ecology should avoid adoption of any regulatory restrictions that are based on anecdotal, unsubstantiated, or discredited information, as this could lead to confusion in the marketplace while unduly burdening manufacturers and limiting consumer choice. Regulatory restrictions proposed under the Act for vinyl flooring must be narrowly tailored to address the risk the Department has identified in connection with exposure to ortho-phthalates, to the extent those chemicals may be present in vinyl flooring products today. In addition, RFCI urges Ecology to consider the impacts its proposed regulatory restrictions would have on the ability to incorporate recycled content into new vinyl flooring, as addressed in more detail below.

³ See RCW 70A.350 (2022).

⁴ See **Exhibit A** attached hereto (main body of comments only; appendices not included herein).

⁵ See **Exhibit B** attached hereto.

⁶ See Toxic-Free Future, *Success!—Home improvement retailers follow through on commitments to remove phthalates from flooring* (June 27, 2019), available online at <https://saferchemicals.org/2019/06/27/success-home-improvement-retailers-follow-through-on-commitments-to-remove-phthalates-from-flooring/> (discussing how top retailers of flooring have honored their commitments to eliminate ortho-phthalates from flooring, which has been further confirmed by testing) (current as of February 3, 2023).

Section I of these comments briefly summarizes information previously provided to Ecology regarding some of the benefits and positive attributes of vinyl flooring. Section II addresses the specific provisions of the Proposed Rule that are related to vinyl flooring.

I. Vinyl Flooring Is a Safe, Sustainable Choice and Manufacturers Have Transitioned Away From the Use of Ortho-Phthalates in New Products

RFCI's previous comments submitted to Ecology in connection with the SPW program have provided important information on the safety, sustainability, and performance benefits of vinyl flooring. As noted above, those comments are incorporated herein and RFCI directs the agency's attention to those previous submissions for a detailed explanation on these topics. In summary:

- Vinyl flooring provides substantial health, safety, and performance benefits over other flooring options because it is durable and easily cleaned, rendering the product ideal for use in a variety of settings including kitchens, school lunchrooms, and hospitals. In addition, vinyl flooring's durability—experience shows the products typically last for thirty to fifty years—cuts down on waste in landfills and leads to conservation of raw materials, making these products a sustainable choice.
- Multiple independent studies have demonstrated that exposure to ortho-phthalates in vinyl flooring and other similar products is *de minimis* if not non-existent.⁷ Multiple studies have considered the inhalation, dermal contact, and ingestion pathways and have repeatedly found no unacceptable risk from the studied ortho-phthalates.⁸ This includes a 2015 *Consumer Reports* study which considered high exposure scenarios (for example, a baby crawling on the vinyl flooring) and determined that ortho-phthalate exposure levels “were very low” and that even in instances where “there may be considerable amounts of [ortho-]phthalates in the composition of the [vinyl flooring] material itself, ... [the] tests show that very little came out in the air or on the wipes themselves.”⁹

⁷ See, e.g., United States Consumer Products Safety Commission, *Chronic Hazard Advisory Panel Report on DINP* (2001); see also National Industrial Chemicals Notification and Assessment Scheme (“NICNAS”) of the Australian Government Department of Health and Ageing, Existing Chemicals Information Sheet: *Diisononyl Phthalate (DINP) Factsheet* (2012); National Toxicology Program Center for the Evaluation of Risks to Human Reproduction, *NTP-CERHR Monograph on the Potential Human Reproductive and Developmental Effects of Di-isononyl Phthalate (DINP)* (2003); European Chemicals Bureau, *European Union Risk Assessment Report: DINP* (2003).

⁸ See, e.g., European Commission (EC), *Phthalates entry 52 – Commission conclusions on the review clause and next steps* at 4 (Jan. 15, 2014); European Chemicals Agency (ECHA), *Evaluation of New Scientific Evidence Concerning DINP and DIDP* (Aug. 2013).

⁹ Consumer Reports, *Vinyl Flooring Safety Questions Answered*, available online at <https://www.consumerreports.org/video/view/home-garden/news/4397736200001/vinyl-flooring-safety-questions-answered/> (current as of February 3, 2023).

- Taken as a whole, these studies make clear that ortho-phthalates, as used in vinyl flooring products (including in-place legacy products), do not concentrate in indoor air, cannot be readily absorbed by the skin, and do not present an ingestion risk from hand-to-mouth activity.
- While RFCI maintains that concerns regarding health risks associated with exposure to ortho-phthalate-containing vinyl flooring are misguided, the vinyl flooring manufacturing sector has swiftly and resoundingly responded to the public perception and market changes largely driven by advocacy groups over the past decade. As a result of the shift in market demand towards ortho-phthalate-free vinyl flooring, manufacturers of vinyl flooring moved away from the use of ortho-phthalates and towards alternatives including terephthalates.¹⁰
- California’s Department of Toxic Substances Control (“DTSC”)—an agency widely renowned for its aggressive approach to consumer product regulation—considered information regarding the flooring market shift to use of terephthalates rather than ortho-phthalates and *removed* vinyl flooring from its 2018-2020 Priority Product Work Plan, pointing to “progress made by manufacturers” as a basis for revising its focus on particular categories of building products.¹¹ In fact, DTSC’s Green Ribbon Science Panel has cited this shift away from ortho-phthalates as an “implementation success” of the Priority Products program.¹² More recently, the Green Chemistry and Commerce

¹⁰ Terephthalates, while similar in name to ortho-phthalates, are very different from a chemistry perspective. The term “phthalates” is generally understood to refer to what are in fact ortho-phthalates. Unlike ortho-phthalates, however, terephthalates are not derived from phthalic acid (and therefore do not fall within the Act’s definition of “phthalate” and/or “priority chemical”), and are structurally significantly different from ortho-phthalates, with a significantly different toxicological profile corresponding to a low hazard profile. *See, e.g.,* W.D. Faber *et al.*, *Developmental toxicity and uterotrophic studies with di-2-ethylhexyl terephthalate*, Birth Defects Res. B. Dev. Reprod. Toxicol. (Oct. 2007); U.S. Consumer Product Safety Commission, Staff Statement on University of Cincinnati Report “Toxicity Review for Di-2-ethylhexyl Terephthalate (DEHT)” (Oct. 2018), available online at <https://www.cpsc.gov/s3fs-public/Toxicity%20Review%20of%20DEHT.pdf?FObpuBBqgypVtw7gIEGMFXHN5H7vbeEz> (current as of February 3, 2023).

¹¹ DTSC, *Draft Three Year Priority Product Work Plan (2018-2020)* (February 2018) (removing “vinyl flooring” as a priority product and noting on page 16: “Note that the Building Products category in the 2015-2017 Work Plan ... focused on painting products, adhesives, sealants, and flooring. ... Although this category has been broadened from the prior Work Plan, we believe there is ample opportunity to streamline decision-making by leveraging progress made by manufacturers, retailers, large institutional buyers ..., and non-governmental agency efforts in reducing harmful chemical content in the built environment”), available online at https://dtsc.ca.gov/wp-content/uploads/sites/31/2017/01/Draft_2018-2020_Priority_Product_Work_Plan.pdf; DTSC, *Three Year Priority Product Work Plan (2018-2020)* (May 1, 2018), available online at https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/10/Final_2018-2020_Priority_Product_Work_Plan.pdf (current as of February 3, 2023).

¹² DTSC Green Ribbon Science Panel, Background Document for Feb. 12-13, 2018 Meeting.

Council, a multi-stakeholder collaborative driving commercial adoption of green chemistry, identified luxury vinyl tile as a case study for successful transition from ortho-phthalates to alternatives, noting that “[f]or the U.S. market, the switch ... is essentially complete.”¹³

II. **RFCI Comments on Specific Substantive Aspects of the Proposed Rule**

RFCI provides the following comments on the portions of the Proposed Rule related to vinyl flooring:

RFCI Supports Ecology’s Clarification of the Definition of “Phthalates” Within This Regulatory Context

RFCI agrees with Ecology’s clarification during the course of this regulatory process that the term “phthalate” in the Act applies only to ortho-phthalates and we appreciate Ecology’s use of the term “ortho-phthalate” throughout the Proposed Rule (as opposed to the generic term “phthalate”) as this helps to avoid unnecessary confusion and is consistent with the Act. We urge the Department to maintain this approach in the final rule.

RFCI Supports an Applicability Threshold of 1,000 ppm for Total Ortho-Phthalate Content for Newly Manufactured Vinyl Flooring Products

In the Proposed Rule, Ecology establishes an applicability threshold of 1,000 ppm total ortho-phthalate content for vinyl flooring (meaning the contemplated regulatory restriction would apply only to vinyl flooring containing ortho-phthalates at or above this concentration).

RFCI maintains that the movement away from use of ortho-phthalates in the manufacture of new vinyl flooring products renders any regulatory restriction under the Act unnecessary. However, should Ecology proceed to promulgate regulatory restrictions on the sale of ortho-phthalate-containing vinyl flooring in the state of Washington, RFCI supports this 1,000 ppm applicability threshold (with the caveats noted in connection with recycled content in the next subsection of these comments). As explained by Ecology in various public meetings and outreach documents issued in connection with the SPW program, this 1,000 ppm level is consistent with standards for total ortho-phthalate content established in consensus-based, voluntary industry certification programs such as ASSURE CERTIFIEDTM and NSF/ANSI 332.¹⁴ These consensus-

¹³ Green Chemistry and Commerce Council, “Landscape Analysis of Drivers, Enablers, and Barriers to Plasticizer Substitution” (Dec. 2021), available online at <https://greenchemistryandcommerce.org/documents/GC3-Plasticizer-Report-Case-Studies-Dec-2021.pdf> (current as of February 3, 2023).

¹⁴ See SCS-0011, *Rigid Core Flooring Certification Standard* (May 1, 2020), available online at https://cdn.scsglobalservices.com/files/program_documents/SCS_STD_RigidCoreFlooring_V1-0_050620_0.pdf (current as of February 3, 2023); and NSF/ANSI 332, *Sustainability Assessment for Resilient Floor Coverings*, available online at

based industry standards have already established thresholds for the use of ortho-phthalates in vinyl flooring products (and, in ASTM F3414-20, *Standard Test Method for Determining Ortho-phthalate Concentration in Flooring Containing Polyvinyl Chloride*, a standardized method for measuring ortho-phthalates). RFCI appreciates Ecology considering these existing standards to inform the Proposed Rule.

RFCI notes, however, that these are *voluntary* industry standards. While a product that has been certified to meet either of these standards would not be subject to the regulatory restrictions for vinyl flooring (since such certification confirms the product falls below the threshold of 1,000 ppm for total ortho-phthalate content), a product would not *have* to certify to either standard for the restriction not to apply provided the product's total ortho-phthalate content was below 1,000 ppm. RFCI believes this to be clear in the text of the Proposed Rule but to avoid any confusion RFCI urges the Department to make this clear when discussing the connection between the proposed applicability threshold and the industry standard levels for ortho-phthalates in the context of public webinars or any similar guidance or outreach materials.

RFCI Urges Ecology to Allow for Flexibility in Addressing Applicability to Vinyl Flooring Made with Recycled Vinyl Content

While as a general matter, RFCI supports the 1,000 ppm applicability threshold as it applies to newly manufactured vinyl flooring products manufactured without recycled content, RFCI urges Ecology to consider the net benefits of allowing a higher applicability threshold for products manufactured with recycled content. The inclusion of pre-consumer and post-consumer recycled content into new vinyl flooring represents a significant opportunity to enhance the environmental and sustainability benefits of vinyl flooring products and to further other Department priorities (including promoting sustainability, reducing the use of virgin resin, and reducing the amount of discarded product sent to landfills). However, recycled post-consumer vinyl flooring may contain legacy chemicals, including ortho-phthalates. As RFCI has explained to representatives of Ecology,¹⁵ RFCI members continue to invest substantial resources into new technology to determine how to encourage widespread use of recycled product in a safe and efficient manner. But overly restrictive and unduly burdensome regulations could have a chilling effect, causing manufacturers to shy away from these efforts. Specifically, the 1,000 ppm threshold will likely prove impractical when considered in the context of vinyl flooring made with ortho-phthalate-containing legacy product.¹⁶

https://d2evkimvhatqav.cloudfront.net/documents/SU_NSF_332_Flooring_Insert_LT_EN_LSU27100812.pdf?mtim e=20200716160801&focal=none. (current as of February 3, 2023).

¹⁵ See email from Jane Rohde, RFCI Technical Consultant, to Lauren Tamboer, State of Washington Department of Ecology, re: "RFCI Survey Letter and Survey Results" (Jan. 27, 2022).

¹⁶ The Department's Preliminary Regulatory Analyses accompanying the Proposed Rule notes that the SPW program considered and rejected a ban on the use of recycled material that contain restricted chemicals because such a ban could result in manufacturers "avoiding the use of recycled content altogether" which "could have unintended consequences on waste reduction efforts." Ecology, Preliminary Regulatory Analyses (Pub. 22-04-042) at p. 68, available online at <https://apps.ecology.wa.gov/publications/documents/2204042.pdf> (current as of February 3,

At a minimum, if the Department does not proceed with establishing a higher applicability threshold for vinyl flooring made with (perhaps some threshold amount of) recycled content, we urge the Department to build flexibility into the regulations that will allow the Department to modify the restriction's applicability to recycled content, or to make more tailored exceptions or approvals, that may be appropriate in the context of vinyl flooring made with pre-consumer and post-consumer recycled content (including, but not limited to, substituting a reporting requirement for such products in place of a restriction that might apply to products composed only of virgin material). This would avoid the unintended and unfortunate effect that the general 1,000 ppm applicability level could have of discouraging recycling initiatives and would allow the Department to adapt the regulatory restriction as appropriate, based on available information as recycling experience and knowledge continues to grow.

To the Extent Ecology Promulgates Restrictions, RFCI Supports an Effective Date of January 1, 2025 for Vinyl Flooring Products

The Act provides that a “rule adopted to implement a regulatory determination involving a restriction on the manufacture, wholesale, distribution, sale, retail sale, or use of a priority consumer product containing a priority chemical may take effect no sooner than three hundred sixty-five days after the adoption of the rule.” RCW 70A.350.080(2)(b). The Proposed Rule includes an effective date of January 1, 2025 for restrictions on vinyl flooring products. *See* Proposed WAC 173-337-111(2)(b). If and to the extent the Department proceeds with promulgating regulatory restrictions for vinyl flooring, RFCI supports this effective date and is hopeful that it will allow the industry an appropriate timeframe to incorporate any necessary formulation modifications and quality control measures into the manufacturing process.

RFCI Supports the Proposed Exemption for Existing Stock of Vinyl Flooring Products

The Act provides that a “restriction or prohibition on a priority chemical in a consumer product may include exemptions or exceptions, including exemptions to address existing stock of a product in commerce at the time that a restriction takes effect.”¹⁷ As noted throughout these comments, vinyl flooring products presently in the market are not a significant source of ortho-phthalates and do not pose a health or safety risk to consumers or the environment. Nevertheless, an exemption for products manufactured as of the effective date will remove significant cost and

2023). But, as currently proposed—with no exception for or accommodation of flooring made with recycled content—the Proposed Rule will likely have the very chilling effect on recycling initiatives that Ecology seeks to avoid. Specifically, the difficulty of ensuring that new products manufactured with recycled content are consistently below the 1,000 ppm total ortho-phthalate content level will discourage and actively disincentivize manufacturers' recycling efforts. This reality for products sold in Washington state will create significant obstacles to recycling efforts for products sold nationwide, stifling or even precluding what would be safe, beneficial, and sustainable reuse while diverting more usable material to landfills.

¹⁷ RCW 70A.350.040(5).

Washington Department of Ecology
Comments of the Resilient Floor Covering Institute
Safer Products for Washington Program
February 3, 2023

logistical challenges—with no associated increase in risk. This is consistent with the Act’s directive. RFCI therefore supports the exemptions in the Proposed Rule for vinyl flooring manufactured before January 1, 2025, as well as the exemptions for repair/replacement parts and product that is refurbished with repair or replacement parts manufactured before January 1, 2025.¹⁸

III. Conclusion

Thank you for the opportunity to provide these comments in connection with the SPW program. RFCI appreciates Ecology’s goals in developing and implementing this program and its members share the Department’s goals of protecting human health and the environment. We look forward to addressing any questions you might have regarding these comments and are happy to provide additional information that may be useful to Ecology in moving towards issuance of a final rule. If you have any questions regarding these comments, please contact Bill Blackstock, RFCI President and CEO (Bill.Blackstock@RFCI.com) or RFCI counsel Allison Foley, Venable LLP (ADFoley@Venable.com).

¹⁸ In the event Ecology finalizes an effective date earlier than January 1, 2025 (which RFCI would not support), RFCI urges the Department to nonetheless extend the exemption to products manufactured before January 1, 2025 in order to allow a reasonable compliance timeframe.

Exhibit A



August 31, 2022

Submitted via e-mail to **SaferProductsWA@ecy.wa.gov**

Hazardous Waste and Toxics Reduction Program
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7696

Re: Comments of the Resilient Floor Covering Institute (“RFCI”) on the Safer Products for Washington Priority Consumer Products Preliminary Draft Rule Language

To whom it may concern:

The Resilient Floor Covering Institute (“RFCI”) submits these comments to the State of Washington Department of Ecology (“Ecology” or the “Department”) on Ecology’s Preliminary Draft Rule Language for a potential new chapter 17-337 of the Washington Administrative Code, to be titled “Safer Products Restrictions and Reporting” (the “Preliminary Draft”).¹ RFCI appreciates the opportunity to comment on this important interim step as the Department prepares its draft regulatory text for the forthcoming formal notice and comment period anticipated at the end of this year. RFCI further appreciates that Ecology extended the deadline for comment on the Preliminary Draft from August 24, 2022 to August 31, 2022² given the very short window allowed for public review and input during this interim step in the statutorily driven rulemaking process.³

RFCI represents the interests of the resilient floor covering industry. Virtually all RFCI flooring manufacturing members produce vinyl flooring, and RFCI associate members provide raw materials and sundry products for the manufacture and use of vinyl flooring. RFCI has long been an advocate of sustainable product selection and sustainable building practices based on life-cycle assessment, sound science, and risk assessments. RFCI and its members therefore appreciate Ecology’s goals in developing and implementing the Safer Products for Washington (“SPW”) program under the 2019 Safer Products for Washington Act (the “Act”).⁴

¹ Available online at https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/PreliminaryDraftRuleLanguage_Cycle1_August2022.pdf (current as of August 31, 2022).

² Ecology formally announced the extension of this comment window during its August 16, 2022 webinar on the Preliminary Draft; prior to that webinar, on an August 15, 2022 telephone call, Ms. Lauren Tamboer of the Department of Ecology communicated to RFCI counsel Allison Foley that Ecology would accept comments through the end of the month.

³ The Preliminary Draft Rule Language was posted to the Department of Ecology website on August 9, 2022 with an email alerting interested parties to availability of the text sent on the evening of August 9, 2022.

⁴ See 70.365.010 RCW *et seq.* (2019).

As a threshold matter, RFCI reiterates and incorporates by reference the comments submitted by RFCI to Ecology on January 28, 2022 on the Department's Draft Regulatory Determinations Report to Legislature ("Draft Determinations"). Specifically, RFCI believes that the overwhelming shift away from the use of ortho-phthalates in new vinyl flooring products that has occurred over the past decade renders regulatory restrictions for this priority product unnecessary and a misdirected use of critical and limited agency resources. Ecology has made clear that it wishes to implement the SPW program and craft any regulations thereunder in a manner that will provide meaningful benefit to the health and safety of Washington consumers and to the environment. One of the goals of the SPW program is the shift towards alternatives deemed safer than the priority chemicals identified in the Act and/or by Ecology; in the case of vinyl flooring manufactured with ortho-phthalates, the data are clear that the presence of ortho-phthalates does not pose a health or safety risk to consumers. Moreover, the reality is that manufacturers have nonetheless already shifted en masse to an alternative product (*i.e.*, vinyl flooring manufactured with alternatives to ortho-phthalates, including terephthalates) without the need for regulatory intervention. This development has been acknowledged even by the consumer advocacy group that led the public outcry regarding perceived health risks of vinyl flooring manufactured with ortho-phthalates.⁵ Ecology should therefore focus any regulatory requirements on priority products that present an ongoing risk to consumers or the environment—that is, priority products that continue to be manufactured with priority chemicals on a regular basis and broad scale.

These comments are based on the understanding that the Department has finalized its recommendations to the legislature to promulgate regulatory restrictions applicable to the vinyl flooring category. If Ecology moves forward with crafting regulatory restrictions for vinyl flooring, it is critical that any such restrictions—as with all restrictions adopted under this novel regulatory program—be based on sound science, practically achievable, and designed to position the Act and its implementing regulations as a meaningful and useful consumer benefit. Ecology should avoid adoption of any regulatory restrictions that are based on anecdotal, unsubstantiated, or discredited information, as this could lead to confusion in the marketplace while unduly burdening manufacturers and limiting consumer choice. Regulatory restrictions proposed under the Act for vinyl flooring, if any, must be narrowly tailored to address the risk the Department has identified in connection with exposure to ortho-phthalates to the extent those chemicals may be present in vinyl flooring products today. In addition, RFCI urges Ecology to consider the limiting effect its proposed regulatory restrictions would have on the ability to incorporate recycled content into new vinyl flooring, as addressed in more detail below.

Section I of these comments addresses the significant benefits of vinyl flooring as a consumer product option and discusses the shift away from the use of ortho-phthalates that has already occurred in the vinyl flooring manufacturing industry. Section II of these comments

⁵ See *e.g.*, Toxic-Free Future, *Success!—Home improvement retailers follow through on commitments to remove phthalates from flooring* (June 27, 2019), available online at <https://toxicfreefuture.org/blog/success-home-improvement-retailers-follow-through-on-commitments-to-remove-phthalates-from-flooring/> (discussing how top retailers of flooring have honored their commitments to eliminate ortho-phthalates from flooring, which has been further confirmed by testing) (current as of August 31, 2022).

addresses an important terminology distinction regarding the use of the term “phthalates” in the Preliminary Draft and related Ecology guidance and outreach materials. Section III of these comments addresses specific substantive aspects of the Preliminary Draft.

I. Vinyl Flooring Is a Safe, Sustainable Choice, and Manufacturers Have Transitioned Away from the Use of Ortho-Phthalates in New Products

Vinyl Flooring Has Long Been a Sustainable Choice for Consumers

Vinyl flooring, with multiple product categories to address different design objectives and consumer priorities, is the number one choice for hard surface flooring in the United States.⁶ Vinyl flooring provides substantial health, safety, and performance benefits over other flooring options because it is durable and easily cleaned, rendering the product ideal for use in a variety of settings including kitchens, school lunchrooms, and hospitals. In addition, vinyl flooring’s durability—experience shows the products typically last for thirty to fifty years—cuts down on waste in landfills and leads to conservation of raw materials, making these products a sustainable choice.

As RFCI explained in comments submitted to Ecology on March 1, 2020, and in earlier comments submitted to California’s Department of Toxic Substances Control (“DTSC”) in response to DTSC’s initial listing of vinyl flooring-phthalates as a priority product-chemical combination under California’s Safer Consumer Products program, multiple independent studies have demonstrated that exposure to ortho-phthalates in vinyl flooring and other similar products is *de minimis* if not non-existent.⁷ (Notably, California removed this product-chemical combination from the 2018-2020 Priority Products Work Plan (“PPWP”) in response to information provided by the flooring industry.⁸) Multiple studies have considered the inhalation, dermal contact, and ingestion pathways and have repeatedly found no unacceptable risk from the studied ortho-phthalates.⁹ Taken as a whole, these studies make clear that ortho-phthalates, as

⁶ See, e.g., *The ReCo Market Intelligence Report*, FLOOR COVERING WEEKLY, June 28, 2021, at 10, available online at <https://bt.editionsbyfry.com/publication/?m=26543&i=712790&p=10&ver=html5> (current as of August 31, 2022).

⁷ See, e.g., United States Consumer Products Safety Commission, *Chronic Hazard Advisory Panel Report on DINP* (July 2014); see also National Industrial Chemicals Notification and Assessment Scheme (“NICNAS”) of the Australian Government Department of Health and Ageing, *Diisononyl Phthalate (DINP) Factsheet* (2012); National Toxicology Program Center for the Evaluation of Risks to Human Reproduction, *NTP-CERHR Monograph on the Potential Human Reproductive and Developmental Effects of Di-isononyl Phthalate (DINP)* (2003); European Chemicals Bureau, *European Union Risk Assessment Report DINP* (2003).

⁸ DTSC’s decision to remove the vinyl flooring-phthalates product-chemical combination from the 2018-2020 PPWP was consistent with the 2016 decision of its sister agency, the California Office of Environmental Health Hazard Assessment (“OEHHA”), to issue Safe Use Determinations under California’s Proposition 65 for exposure to diisononyl phthalate (“DINP”) in vinyl flooring products (see OEHHA, Safe Use Determination Letter: Issuance of a SUD for exposure to diisononyl phthalate in vinyl flooring products, issued to Resilient Floor Covering Institute (June 24, 2016), available online at <https://oehha.ca.gov/proposition-65/crn/issuance-safe-use-determination-exposure-residents-diisononyl-phthalate-vinyl> (current as of August 31, 2022)).

⁹ See, e.g., European Commission (EC), *Phthalates entry 52 – Commission conclusions on the review clause and next steps* at 4 (Jan. 15, 2014); European Chemicals Agency (ECHA), *Evaluation of New Scientific Evidence Concerning DINP and DIDP* (Aug. 2013).

used in vinyl flooring products (including in-place legacy products), do not concentrate in indoor air, cannot be readily absorbed by the skin, and do not present an ingestion risk from hand-to-mouth activity.

More recent studies have continued to demonstrate the low risk profile of ortho-phthalates as used in vinyl flooring, even as public perception shifted to align with purported risks of these products. For example, in 2015, *Consumer Reports* published a study focused on potential exposure to ortho-phthalates in seventeen vinyl flooring products and considered inhalation exposure and direct dermal contact (for example, a baby crawling on the vinyl floor).¹⁰ The study concludes that “[ortho-]phthalate levels were very low,”¹¹ explaining that, even in instances where “there may be considerable amounts of [ortho-]phthalates in the composition of the [vinyl flooring] material itself, ... our tests show that very little came out in the air or on the wipes themselves.”¹² As discussed below, the resilient flooring market has shifted away from the use of ortho-phthalates towards alternatives; however, the findings of this study underscore that, even to the limited extent that ortho-phthalates may still be found in vinyl flooring offered for sale (potentially including vinyl flooring containing recycled vinyl content, addressed in more detail in Section III below), these products result in little to no exposure to ortho-phthalates. (Additional information regarding these studies finding that ortho-phthalates as used in vinyl flooring present no significant risk to human health is set forth in Attachment A to these comments.)

The Vinyl Flooring Industry Has Shifted Away from the Use of Ortho-Phthalates In the Manufacture of New Vinyl Flooring Products.

Developments in the flooring market over the past several years render the discussion of risks from ortho-phthalates in vinyl flooring moot, particularly in the context of a program like Washington’s, which is intended to focus administrative resources on consumer products posing the greatest risk to human health and the environment and to promote the use of alternatives to those products. Since the Department first began public outreach regarding its implementation of the Act’s requirements, Ecology representatives have consistently made clear that the Department is not considering any hazard or risk information related to the products it is considering for designation as priority products. However, as a practical matter—regardless of whether ortho-phthalate-containing vinyl flooring poses any significant risk—flooring manufacturers have already shifted to the use of alternatives including terephthalates (which are structurally very different from the ortho-phthalates upon which the listing of “phthalates” as a priority chemical class under the SPW program is based¹³).

¹⁰ Consumer Reports, *Vinyl Flooring Safety Questions Answered* (Aug. 6, 2015), available online at <https://www.consumerreports.org/video/view/home-garden/news/4397736200001/vinyl-flooring-safety-questions-answered/> (current as of August 31, 2022).

¹¹ *Id.* at 0:52.

¹² *Id.* at 0:43.

¹³ Terephthalates, while similar in name to ortho-phthalates, are very different from a chemistry perspective. The term “phthalates” is generally understood to refer to what are in fact ortho-phthalates. Unlike ortho-phthalates, however, terephthalates are not derived from phthalic acid (and therefore do not fall within the Act’s definition of “phthalate” and/or “priority chemical”), and are structurally significantly different from ortho-phthalates, with a significantly

While RFCI maintains that concerns regarding health risks associated with exposure to ortho-phthalate-containing vinyl flooring are misguided, the vinyl flooring manufacturing sector has swiftly and resoundingly responded to the public perception and market changes largely driven by advocacy groups over the past decade. As a result of the shift in market demand towards ortho-phthalate-free vinyl flooring, manufacturers of vinyl flooring moved away from the use of ortho-phthalates and towards alternatives including terephthalates.

As noted above in these comments, California’s DTSC—an agency widely renowned for its aggressive approach to consumer product regulation—considered information regarding the flooring market shift to use of terephthalates rather than ortho-phthalates and *removed* vinyl flooring from its 2018-2020 PPWP, pointing to “progress made by manufacturers” as a basis for revising its focus on particular categories of building products.¹⁴ In fact, DTSC’s Green Ribbon Science Panel has cited this shift away from ortho-phthalates as an “implementation success” of the Safer Consumer Product program.¹⁵ More recently, the Green Chemistry and Commerce Council, a multi-stakeholder collaborative driving commercial adoption of green chemistry, identified luxury vinyl tile as a case study for successful transition from ortho-phthalates to alternatives, noting that “[f]or the U.S. market, the switch is > 95% and essentially complete.”¹⁶

RFCI encourages Ecology to take a similar approach as DTSC, which has focused its limited agency resources on those product-chemical combinations that continue to be manufactured and are proven to present a risk to consumers. Any restrictions Ecology moves forward with proposing should be narrowly tailored to actual exposure.

different toxicological profile corresponding to a low hazard profile. *See, e.g.,* W.D. Faber *et al.*, *Developmental toxicity and uterotrophic studies with di-2-ethylhexyl terephthalate*, Birth Defects Res. B. Dev. Reprod. Toxicol. (Oct. 2007); U.S. Consumer Product Safety Commission, Staff Statement on University of Cincinnati Report “Toxicity Review for Di-2-ethylhexyl Terephthalate (DEHT)” (Oct. 2018), available online at <https://www.cpsc.gov/s3fs-public/Toxicity%20Review%20of%20DEHT.pdf?FObpuBBqgypVtw7gIEGMFXHN5H7vbeEz> (current as of August 31, 2022).

¹⁴ DTSC, *Draft Three Year Priority Product Work Plan (2018-2020)* (February 2018) (removing “vinyl flooring” as a priority product; noting on page 16: “Note that the Building Products category in the 2015-2017 Work Plan ... focused on painting products, adhesives, sealants, and flooring. ... Although this category has been broadened from the prior Work Plan, we believe there is ample opportunity to streamline decision-making by leveraging progress made by manufacturers, retailers, large institutional buyers ..., and non-governmental agency efforts in reducing harmful chemical content in the built environment”), available at https://dtsc.ca.gov/wp-content/uploads/sites/31/2017/01/Draft_2018-2020_Priority_Product_Work_Plan.pdf (current as of August 31, 2022); DTSC, *Three Year Priority Product Work Plan (2018-2020)* (May 1, 2018), available at https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/10/Final_2018-2020_Priority_Product_Work_Plan.pdf (current as of August 31, 2022).

¹⁵ DTSC Green Ribbon Science Panel, Background Document for Feb. 12-13, 2018 Meeting.

¹⁶ Green Chemistry and Commerce Council, “Landscape Analysis of Drivers, Enablers, and Barriers to Plasticizer Substitution” (Dec. 2021), available online at <https://greenchemistryandcommerce.org/documents/GC3-Plasticizer-Report-Case-Studies-Dec-2021.pdf> (current as of August 31, 2022).

II. Ecology Has Appropriately Provided Clarity Regarding Its Use of the Term “Phthalates” as Defined By the Act.

The Act directs Ecology to consider six specific classes of “priority chemicals” (in addition to other chemicals the Department may identify as priority chemicals), including “phthalates.”¹⁷ The Act defines “phthalates” as “synthetic chemical esters of phthalic acid.”¹⁸ As Ecology explained in its Draft Determinations earlier this year:

RCW 70A.350.010 defines phthalates as a class as “synthetic esters of phthalic acid” based on their chemical structure. The National Library of Medicine (NLM) defines the term phthalic acid as a “benzenedicarboxylic acid consisting of two carboxy groups at ortho positions.” This definition does not include benzenedicarboxylic acid with two carboxy groups in either the meta or para configurations (e.g., isophthalic acid or terephthalic acid).

Thus, the definition of this priority chemical class can be clarified to include only ortho-phthalates. Subsequent references to “phthalates” in this chapter refer specifically to ortho-phthalates.¹⁹

RFCI agrees with Ecology that the definition of “phthalates” under the Act and in related scientific literature limits the scope of this defined term to ortho-phthalates. RFCI appreciates that Ecology refers consistently to “ortho-phthalates” in the Preliminary Draft and urges Ecology to maintain this approach in the regulatory text and related guidance and outreach materials as the Department refines and moves towards formal proposal of these regulations.

III. RFCI Comments on Specific Substantive Aspects of the Preliminary Draft

RFCI Supports an Applicability Threshold of 1,000 ppm for Total Ortho-Phthalate Content for Newly Manufactured Vinyl Flooring Products

In the Preliminary Draft, Ecology establishes an applicability threshold of 1,000 ppm total ortho-phthalate content for vinyl flooring (meaning the contemplated regulatory restriction would apply only to vinyl flooring containing ortho-phthalates at or above this concentration).

RFCI maintains that the movement away from use of ortho-phthalates in the manufacture of new vinyl flooring products renders any regulatory restriction under the Act unnecessary. However, should Ecology proceed to propose and ultimately promulgate regulatory restrictions on the sale of ortho-phthalate-containing vinyl flooring in the state of Washington, RFCI supports

¹⁷ RCW 70A.350.010(12).

¹⁸ *Id.* at 70A.350.010(10).

¹⁹ Draft Determinations at 140 (internal citations omitted).

this 1,000 ppm applicability threshold (with the caveats noted in connection with recycled content in the next sub-section of these comments). As explained by Ecology in various public meetings and outreach documents issued in connection with the SPW program, this 1,000 ppm level is consistent with standards for total ortho-phthalate content established in consensus-based, voluntary industry certification programs such as ASSURE CERTIFIED™ and NSF/ANSI 332.²⁰ These consensus-based industry standards have already established thresholds for the use of ortho-phthalates in vinyl flooring products (and, in ASTM F3414-20, *Standard Test Method for Determining Ortho-phthalate Concentration in Flooring Containing Polyvinyl Chloride*, a standardized method for measuring ortho-phthalates). RFCI appreciates Ecology considering these existing standards to inform their decision-making as the Department crafts any potential restrictions imposed on vinyl flooring products under the Act.

RFCI notes, however, that these are *voluntary* industry standards. While a product that has been certified to meet either of these standards would not be subject to the regulatory restrictions for vinyl, a product would not *have* to certify to either standard for the restriction not to apply provided the product's total ortho-phthalate content was below 1,000 ppm. RFCI believes this to be clear in the text of the Preliminary Draft but to avoid any confusion RFCI urges the Department to make this clear in the context of public webinars or any similar guidance or outreach materials when discussing the connection between the proposed applicability threshold and the industry standard levels for ortho-phthalates.

RFCI Urges Ecology to Allow for Flexibility in Addressing Applicability to Vinyl Flooring Made with Recycled Vinyl Content

While as a general matter, RFCI supports the 1,000 ppm applicability threshold as it applies to newly manufactured vinyl flooring products manufactured without recycled content, RFCI urges Ecology to consider the net benefits of allowing a higher applicability threshold for products manufactured with recycled content. As discussed in RFCI's March 2022 comments on the Preliminary Determinations, the inclusion of post-consumer recycled content into new vinyl flooring represents a significant opportunity to enhance the environmental and sustainability benefits of vinyl flooring products and to further other Department priorities (including promoting sustainability, reducing the use of virgin resin, and reducing the amount of discarded product sent to landfill). However, recycled post-consumer vinyl flooring may contain legacy chemicals, including ortho-phthalates. As RFCI has explained to representatives of Ecology,²¹ RFCI members continue to invest substantial resources into new technology to determine how to encourage widespread use of recycled product in a safe and efficient manner. But overly restrictive

²⁰ See *Rigid Core Flooring Certification Standard*, SCS-0011 (May 1, 2020), available online at https://cdn.scsglobalservices.com/files/program_documents/SCS_STD_RigidCoreFlooring_V1-0_050620_0.pdf (current as of August 31, 2022) (note: updated revision slated for 2022 publication); NSF/ANSI 332, *Sustainability Assessment for Resilient Floor Coverings*, available online at https://d2evkimvhatqav.cloudfront.net/documents/SU_NSF_332_Flooring_Insert_LT_EN_LSU27100812.pdf?mtime=20200716160801&focal=none. (current as of August 31, 2022).

²¹ See email from Jane Rohde, RFCI Technical Consultant, to Lauren Tamboer, State of Washington Department of Ecology, re: "RFCI Survey Letter and Survey Results" (Jan. 27, 2022).

and unduly burdensome regulations could have a chilling effect, causing manufacturers to shy away from these efforts. Specifically, the 1,000 ppm threshold will likely prove impractical when considered in the context of vinyl flooring made with ortho-phthalate-containing legacy product.

At a minimum, if the Department does not proceed with proposing a higher applicability threshold for vinyl flooring made with (perhaps some threshold amount of) recycled content, we urge the Department to build flexibility into the regulations that will allow the Department to modify the restriction's applicability to recycled content, or to make more tailored exceptions or approvals, that may be appropriate in the context of vinyl flooring made with post-consumer recycled content (including, but not limited to, substituting a reporting requirement for such products in place of a restriction that might apply to products composed only of virgin material). This would avoid the unintended and unfortunate effect that the general 1,000 ppm applicability level could have of discouraging recycling initiatives and would allow the Department to adapt the regulatory restriction as appropriate, based on available information as recycling experience and knowledge continues to grow.

To the Extent Ecology Promulgates Restrictions Along the Lines of Those Described in the Preliminary Draft, RFCI Supports an Effective Date of January 1, 2025 for Vinyl Flooring Products

The Act provides that a “rule adopted to implement a regulatory determination involving a restriction on the manufacture, wholesale, distribution, sale, retail sale, or use of a priority consumer product containing a priority chemical may take effect no sooner than three hundred sixty-five days after the adoption of the rule.” RCW 70A.350.080(2)(b). In the Preliminary Draft, Ecology has suggested an effective date of January 1, 2025 for restrictions on vinyl flooring products. If and to the extent the Department proceeds with proposing and promulgating regulatory restrictions for vinyl flooring, RFCI supports this effective date and is hopeful that it will allow the industry an appropriate timeframe to incorporate any necessary formulation modifications and quality control measures into the manufacturing process.

RFCI Supports an Exemption for Existing Stock of Vinyl Flooring Products

The Act provides that a “restriction or prohibition on a priority chemical in a consumer product may include exemptions or exceptions, including exemptions to address existing stock of a product in commerce at the time that a restriction takes effect.”²² As noted throughout these comments, vinyl flooring products presently in the market are not a significant source of ortho-phthalates and do not pose a health or safety risk to consumers or the environment. An exemption for products manufactured as of the effective date will remove significant cost and logistical challenges with no associated increase in risk, and is consistent with the Act's directive. RFCI

²² RCW 70A.350.040(5).

therefore supports an exemption from any regulatory restrictions for vinyl flooring manufactured prior to January 1, 2025 (or such later effective date as Ecology may ultimately establish).²³

IV. Conclusion

RFCI appreciates Ecology's goals in developing and implementing the SPW program. RFCI and its members share many of the objectives that are at the heart of this regulatory initiative and the underlying Act, and the actions of RFCI members—including the voluntary, proactive shift towards the use of alternatives to ortho-phthalates—demonstrates a continued commitment to the production of safe, sustainable products. Moreover, RFCI members share the goal of improving transparency regarding product composition, safety, and sustainability. However, it remains critical that any regulatory restrictions imposed on priority products under the Act address actual exposure risk and do not discourage environmentally beneficial recycling efforts.

Thank you for the opportunity to provide these comments in connection with this important regulatory initiative. We look forward to addressing any questions you might have regarding these comments, and we are happy to provide additional information that may be useful to Ecology in reviewing and revising its Preliminary Draft and moving towards issuance of a formal proposal. If you have any questions regarding these comments, please contact Bill Blackstock, RFCI President and CEO (Bill.Blackstock@RFCI.com) or RFCI counsel Allison Foley, Venable LLP (ADFoley@Venable.com).

²³ In the event Ecology proposes an effective date earlier than January 1, 2025, RFCI urges the Department to nonetheless extend the exemption to products manufactured before January 1, 2025 in order to allow a reasonable compliance timeframe.

Exhibit B



**COMMENTS OF THE RESILIENT FLOOR COVERING INSTITUTE
ON THE WASHINGTON DEPARTMENT OF ECOLOGY'S
DRAFT REGULATORY DETERMINATIONS – REPORT TO LEGISLATURE
SAFER PRODUCTS FOR WASHINGTON PROGRAM**

**SUBMITTED TO THE
WASHINGTON DEPARTMENT OF ECOLOGY**

January 28, 2022

RESILIENT FLOOR COVERING INSTITUTE:

Bill Blackstock, President and CEO
Dean Thompson, President Emeritus
115 Broad Street
Suite 201
LaGrange, GA 30240
Bill.Blackstock@RFCI.com

OF COUNSEL:

Allison D. Foley
John B. Mavretich
Venable LLP
600 Massachusetts Avenue, N.W.
Washington, DC 20001
ADFoley@Venable.com
JBMavretich@Venable.com

The Resilient Floor Covering Institute (“RFCI”) appreciates the opportunity to comment on the Washington Department of Ecology’s (“Ecology” or the “Department”) Draft Regulatory Determinations Report to the Legislature (“Draft Determinations”)¹ issued in connection with Implementation Phase 3 of Ecology’s Safer Products for Washington Program (the “Program”), as authorized by the Pollution Prevention for Healthy People and Puget Sound Act of 2019 (the “Act”).² RFCI supports Ecology’s efforts to reduce the use of toxic chemicals in household products through implementation of the Program; as described in greater detail below, RFCI member companies have long sought to assess and improve their products, including by proactively shifting away from ortho-phthalates in the manufacture of vinyl flooring products. RFCI applauds Ecology’s efforts in implementing the Program, in particular the Department’s commitment to meaningful dialogue with public interest groups, the manufacturer community, and other interested stakeholders as Ecology evaluates priority products and considers appropriate regulatory responses consistent with the Act’s mandate.

RFCI represents the interests of the resilient floor covering industry; virtually all RFCI flooring manufacturing members produce vinyl flooring, and RFCI associate members provide raw materials and sundry products for the manufacture and use of vinyl flooring. Resilient flooring is currently the number one consumer choice for hard surface flooring, and in recent years the product category—in particular, luxury vinyl tile (“LVT”)—has seen tremendous growth³ as consumers opt for the sustainability, durability, and aesthetics of this flooring option. Given the popularity of resilient flooring and the many benefits it offers to the consumer, it is important that this product category remain an available and affordable option in the Washington market.

RFCI has long been an advocate of sustainable product selection and building practices based on life-cycle assessment, sound science, and risk assessments. Ecology has made clear that it wishes to implement the Program and craft any regulations thereunder in a manner that will provide meaningful benefit to the health and safety of Washington consumers and to the environment. Ecology should therefore focus any regulatory requirements on priority products that present an ongoing risk to consumers or the environment—that is, priority products that continue to be manufactured on a regular basis and broad scale with priority chemicals. Similarly, Ecology should avoid any regulatory requirements that are overly broad or based on an over-

¹ Washington Department of Ecology (“Ecology”), Draft Regulatory Determinations Report to the Legislature, Safer Products for Washington, Implementation Phase 3, Publication 21-04-047 (Nov. 2021) (“Draft Determinations”).

² S.S.B. 5135 (2019); RCW 70A.350.010 *et seq.* (2020) (formerly RCW 70.365.010 *et seq.* (2019)).

³ *See, e.g.*, Verified Market Research, *Global Luxury Vinyl Tile-LVT Market Size By Type, By End-Use Sector, By Geographic Scope and Forecast*, Report ID 25815 (July 2021), available online at <https://www.verifiedmarketresearch.com/product/luxury-vinyl-tile-lvt-market/> (LVT market valued at \$16.11 billion in 2020, projected to reach \$37.92 billion by 2028); *see also* “Luxury Vinyl Tiles (LVT) Flooring Market by Type (Rigid, Flexible), End-Use Sector (Residential, Non-residential), and Region (North America, Asia Pacific, Europe, Middle East & Africa, and South America) – Global Forecast to 2024,” available online at <https://www.marketsandmarkets.com/Market-Reports/lvt-flooring-market-105150640.html>.

inclusive approach which—even if well-intentioned—would lead to consumer confusion, frustrating the goals of the Act.

As Ecology considers public input on the Draft Determinations and begins to develop more concrete regulatory requirements, RFCI urges the Department to ensure that any regulatory action ultimately taken under the Program is based on the best available scientific information and considers current market conditions. To achieve these goals and to promote clarity in the final recommendations, and to ensure that any forthcoming regulatory requirements represent an efficient use of administrative resources that will provide a meaningful health or environmental benefit, RFCI urges Ecology to consider the following:

- To avoid confusion among consumers and other members of the public, and to promote clarity regarding risk findings and regulatory requirements, Ecology should provide greater clarity regarding the meaning of “phthalates” under the Program. While the term “phthalates” is clearly defined under the statute and used by Ecology to mean ortho-phthalates—a category of chemicals with a distinct chemical structure and chemical characteristics—this term is sometimes, due to the similar nomenclature, misunderstood by the general public to include terephthalates. As discussed in greater detail below, Ecology should make clearer at the outset of its Regulatory Determinations and related reports to the legislature and/or the public that “phthalates” (*i.e.*, ortho-phthalates) are distinct from, behave differently from, and do not include terephthalates.
- Given the widespread and well-documented shift away from the use of ortho-phthalates in the manufacture of new vinyl flooring products that has already occurred, regulatory restrictions under the Program are not warranted for vinyl flooring products; Ecology’s finite resources would provide more meaningful public benefit, consistent with the legislative objectives of the Act, if focused on priority products that continue to be manufactured with priority chemicals.
- Regulatory restrictions proposed under the Act for resilient vinyl flooring, if any, must be narrowly tailored to address the risk identified in connection with exposure to ortho-phthalates as those chemicals may be present in vinyl flooring products; any such regulatory restrictions must be based on sound science and further must be practically achievable.
- The significant environmental and sustainability benefits associated with the responsible recycling of vinyl flooring products far outweigh any potential, and likely *de minimis*, risk associated with low levels of unintentionally added ortho-phthalates that may be present in some recycled vinyl flooring products; Ecology should consider the benefits of vinyl flooring recycling—which are consistent with and further Ecology goals under other programs—in developing any regulatory restrictions under the Act.

Each of these comments is discussed in greater detail below.

I. DTSC Should Provide Greater Clarity Regarding Its Use of the Term “Phthalates.”

The Act directs Ecology to consider six specific classes of “priority chemicals” (in addition to other chemicals the Department may identify as priority chemicals), including “phthalates.”⁴ The Act defines “phthalates” as “synthetic chemical esters of phthalic acid.”⁵ As Ecology explains in the Draft Determinations:

RCW 70A.350.010 defines phthalates as a class as “synthetic esters of phthalic acid” based on their chemical structure. The National Library of Medicine (NLM) defines the term phthalic acid as a “benzenedicarboxylic acid consisting of two carboxy groups at ortho positions.” This definition does not include benzenedicarboxylic acid with two carboxy groups in either the meta or para configurations (e.g., isophthalic acid or terephthalic acid).

Thus, the definition of this priority chemical class can be clarified to include only ortho-phthalates. Subsequent references to “phthalates” in this chapter refer specifically to ortho-phthalates.⁶

RFCI agrees with Ecology that the definition of “phthalates” under the Act and in related scientific literature limits the scope of this defined term to ortho-phthalates. RFCI appreciates the clarification offered by the above-quoted text; however, as this explanation is provided at about the halfway point of the over three-hundred-page report, readers of the report may miss this point. RFCI encourages Ecology to update the discussion of the term “phthalates” found on page 28 of the report to include the same explanation (including, specifically, the clarification that the term—as used in the Act, in the Draft Determinations, or otherwise—does *not* include terephthalates. This portion of the report may be further strengthened by an acknowledgment that terephthalates, while similar in name to ortho-phthalates, have a different chemical structure and toxicological profile from ortho-phthalates.⁷

For the sake of clarity, RFCI uses the term “ortho-phthalates” throughout these comments. This term is intended to be synonymous with the term “phthalates” as used by Ecology in the Draft Determinations.

⁴ RCW 70A.350.010(12).

⁵ *Id.* at 70A.350.010(10).

⁶ Draft Determinations at 140 (internal citations omitted).

⁷ Consumer advocacy groups including the Healthy Building Network have acknowledged, in the context of bis(2-ethylhexyl) terephthalate (commonly abbreviated as DEHT or DOTP), that “no reproductive or developmental toxicity or endocrine disrupting effects have been observed in studies on DEHT.” Sarah Lott, Healthy Building Network, “Phthalate-free Plasticizers in PVC”, v2 (Sept. 2014), available online at <https://fdocuments.in/document/phthalate-free-plasticizers-in-pvc-s3-phthalate-free-plasticizers-in-pvc.html>.

II. Manufacturers Have Already Ceased Using Ortho-Phthalates in the Manufacture of New Resilient vinyl flooring Products; No Regulatory Intervention is Warranted.

Ecology states in the Draft Determinations that “the use of phthalates in vinyl flooring is significant and vinyl flooring represents a significant source of phthalates,” concluding that “restricting the use of phthalates in vinyl flooring will reduce a significant source of phthalate exposure to people and the environment.”⁸ RFCI disagrees with this conclusion, as the underlying assumption—that “the use of ortho-phthalates in vinyl flooring is significant”—is faulty. Specifically, RFCI believes that existing data clearly demonstrate that actions *already taken* by resilient vinyl flooring manufacturers have already successfully reduced human and environmental exposure to ortho-phthalates from resilient vinyl flooring. Moreover, all available information indicates that this trend will only continue, with the already significantly reduced amounts of ortho-phthalates in resilient vinyl flooring continuing to steadily decrease over time. There is therefore no basis for any regulatory intervention; regulations are not necessary to prompt a development that is already, as a result of actions taken by manufacturers over the past several years, in motion. Below we provide more detail regarding the industry shift away from the use of ortho-phthalates.

Over the past decade, state regulatory agencies and consumer advocacy groups have focused on purported health risks associated with ortho-phthalates. As a result of the corresponding shift in market demand towards vinyl flooring that is free of ortho-phthalates, manufacturers of vinyl flooring have moved away from the use of ortho-phthalates and towards alternatives including terephthalates and bio-based plasticizers. These developments predate Ecology’s implementation of the Program, and even enactment of the Act itself. Specifically, by 2015, the three largest home improvement chains in the United States (Home Depot, Lowes, and Menards), as well as Lumber Liquidators, had all adopted policies to phase out ortho-phthalate-containing PVC flooring (not including vinyl flooring composed of recycled PVC content, which account for only a very small fraction of domestic vinyl flooring sales; however, Lumber Liquidators ceased sale of all vinyl flooring containing reprocessed plastics, including recycled vinyl flooring, by the end of 2015⁹). Ecology acknowledges these developments in the Draft Determinations.¹⁰ The success of these corporate policies is underscored by a 2019 study performed by a collection of environmental advocacy groups: the study sampled twenty-five vinyl

⁸ Draft Determinations at 151.

⁹ Safer Chemicals Healthy Families, “Lumber Liquidators commits to selling vinyl flooring made without reprocessed plastic” (Nov. 17, 2015), available online at <https://saferchemicals.org/2015/11/17/lumber-liquidators-commits-to-selling-vinyl-flooring-made-without-reprocessed-plastic/>.

¹⁰ Draft Determinations at Table 91.

flooring products collected from Home Depot, Lowes, and Lumber Liquidators and found that none of the samples contained any ortho-phthalates above laboratory detection limits.¹¹

Because of these ortho-phthalate bans by major domestic retailers and in response to evolving public concerns, the vinyl flooring industry moved away from ortho-phthalate plasticizers and towards alternatives including terephthalate plasticizers years ago. By early 2018, California’s Department of Toxic Substances Control (“DTSC”) had taken note of this shift in the context of its Safer Consumer Products (“SCP”) program, analogous to the Washington Program. In its initial development of a Priority Product Work Plan under the SCP, DTSC included the “vinyl flooring”-“phthalate” product-chemical combination in its Priority Product Work Plan for 2015-2017.¹² However, upon considering information regarding the flooring market shift to use of terephthalates rather than ortho-phthalates, DTSC *removed* vinyl flooring from its 2018-2020 Priority Product Work Plan, pointing to “progress made by manufacturers” as a basis for revising its focus on particular categories of building products.¹³

DTSC—an agency widely renowned for its aggressive approach to consumer product risk—appears to agree that this consumer product does not warrant regulatory attention under a program intended to address meaningful consumer product risk. In fact, DTSC’s Green Ribbon Science Panel has cited this shift away from ortho-phthalates as an “implementation success” of the Safer Consumer Product program.¹⁴ More recently, the Green Chemistry and Commerce Council, a multi-stakeholder collaborative driving commercial adoption of green chemistry, identified luxury vinyl tile as a case study for successful transition from ortho-phthalates to alternatives, noting that “[f]or the U.S. market, the switch to alternatives is essentially complete.”¹⁵

This trend away from ortho-phthalates and towards alternative materials, including terephthalates, was further documented in the survey data provided by RFCI members to Ecology in connection with the Department’s evaluation of vinyl flooring. As Ecology acknowledges in

¹¹ Safer Chemicals Healthy Families, “Success! – Home improvement retailers follow through on commitments to remove phthalates from flooring” (June 27, 2019), available online at <https://saferchemicals.org/2019/06/27/success-home-improvement-retailers-follow-through-on-commitments-to-remove-phthalates-from-flooring/>.

¹² California Department of Toxic Substances (“DTSC”), 2015-2017 Priority Product Work Plan Sections 4.2.1, 4.7, and Table 8 (identifying “vinyl flooring” and “phthalates” as a priority product-chemical combination).

¹³ DTSC, *Draft Three Year Priority Product Work Plan (2018-2020)* (February 2018) (removing “vinyl flooring” as a priority product; noting on page 16: “Note that the Building Products category in the 2015-2017 Work Plan ... focused on painting products, adhesives, sealants, and flooring. ... Although this category has been broadened from the prior Work Plan, we believe there is ample opportunity to streamline decision-making by leveraging progress made by manufacturers, retailers, large institutional buyers ..., and non-governmental agency efforts in reducing harmful chemical content in the built environment”); DTSC, *Three Year Priority Product Work Plan (2018-2020)* (May 1, 2018).

¹⁴ DTSC Green Ribbon Science Panel, Background Document for Feb. 12-13, 2018 Meeting.

¹⁵ Green Chemistry and Commerce Council, “Landscape Analysis of Drivers, Enablers, and Barriers to Plasticizer Substitution” (Dec. 2021), available online at <https://greenchemistryandcommerce.org/documents/GC3-Plasticizer-Report-Case-Studies-Dec-2021.pdf>.

the Draft Determinations: “In data we received from manufacturers to date, the majority reported using alternative plasticizers and were no longer using phthalates.”¹⁶ While Ecology states that survey data provided by vinyl flooring manufacturers showed “that both DEHP and DINP are still used in a subset of products,” RFCI expects, based on member experience and input, that this diminishing subset of products represents only a small portion of the vinyl flooring industry. Moreover, we further expect that the level of ortho-phthalates in this subset of product is far below Ecology’s estimate of 9-32% by weight. This percentage range appears to be based on studies largely conducted prior to 2015—that is, prior to the developments that prompted the large-scale shift away from use of ortho-phthalates in vinyl flooring products.¹⁷ As explained above and as documented in the data submitted by RFCI members to Ecology, vinyl flooring products being sold today have shifted away from the use of ortho-phthalates; the range cited by Ecology no longer represents an accurate assessment of the formulations used in today’s marketplace.

For these reasons, Ecology should determine that no regulatory restrictions are necessary to address ortho-phthalates in vinyl flooring. This is within the Department’s discretion in implementing the Act’s mandate. Specifically, the Act provides Ecology with discretion to select the appropriate regulatory action with regard to priority chemicals in priority consumer products from the following options: (1) take no regulatory action, (2) require notice, or (3) implement a restriction or prohibition of a priority chemical in a consumer product.¹⁸ Because vinyl flooring products are now being manufactured without ortho-phthalates, the appropriate agency action would be a determination that no regulatory action is warranted as it relates to ortho-phthalates in vinyl flooring. This outcome would be sound from a risk-based perspective since manufacturers of vinyl flooring have already—in the absence of any legally enforceable mandate—proactively moved away from the use of ortho-phthalates in vinyl flooring products. Ecology’s finite resources would be put to better use, and yield more meaningful protection for both public health and the environment, if focused on priority products that result in more significant exposure to health/the environment—including those priority products for which manufacture continues to rely on the use of priority chemicals.

A determination that no regulatory action is required is appropriate not only from a common sense perspective but also from a statutory perspective. The Act requires that any restrictions or prohibitions imposed on a priority chemical in a priority consumer product must be based on a determination by Ecology that safer and feasible alternatives are available and that (1) the restriction will reduce a significant source of or use of a priority chemical or (2) the restriction is necessary to protect the health of sensitive populations or sensitive species. A restriction of ortho-phthalates in vinyl flooring satisfies neither (1) or (2). First, as discussed throughout these

¹⁶ Draft Determinations at 152.

¹⁷ Ecology, Priority Consumer Products Report to the Legislature, Safer Products for Washington Implementation Phase 2 (July 2020, Publication 20-04-019), Table 15 (cataloguing studies (one from 2004, four from 2014, and two from 2016) related to phthalate concentrations in vinyl flooring).

¹⁸ RCW 70A.350.040(1).

comments and RFCI's previous submissions, vinyl flooring is not a significant source of ortho-phthalates as such chemicals are no longer utilized in the manufacturing process. Second, a restriction or prohibition is not necessary to protect exposure of sensitive populations or sensitive species to ortho-phthalate-containing vinyl flooring, since manufacturers have already moved away from the use of ortho-phthalates.

III. Ecology Should Balance Any Potential Exposure to Low Levels of Ortho-Phthalates in Recycled Vinyl Flooring Content Against the Significant Environmental and Sustainability Benefits of Recycled Products.

As a result of the formulation changes noted above for vinyl flooring products, as a general matter, ortho-phthalates are no longer added to new vinyl flooring products. However, as Ecology notes in the Draft Determinations, ortho-phthalates may unintentionally be introduced into new vinyl flooring products through the utilization of recycled materials.¹⁹ However, recent survey data from RFCI members indicate that the likelihood of this potential outcome is low. As shown in the survey data recently submitted to the Department (the "RFCI Survey"),²⁰ only one RFCI flooring manufacturer survey respondent utilizes post-consumer product as recycled content in new flooring, and, based on follow-up discussions with RFCI members, that post-consumer content is most likely filler (*e.g.*, gypsum board) and *not* vinyl with plasticizer content. As demonstrated by the survey results, the only product type including post-consumer product content was vinyl composition tile ("VCT"), which uses a higher percentage of filler, and a lower percentage of vinyl resin and plasticizer, than other types of vinyl flooring products. Therefore, the post-consumer content would not include vinyl resin or ortho-phthalate plasticizer.

Seven out of fifteen of the flooring manufacturer respondents indicated that they utilize pre-consumer content. Typically, where manufacturers use regrind from another production line and/or plant location in another product type, the regrind would be considered pre-consumer content. Discussions with RFCI members in the wake of the RFCI Survey revealed that recycled content containing ortho-phthalates would typically not be used in new resilient flooring product formulations.

As time goes on, it will become increasingly likely that pre-consumer content would have been manufactured after the point at which manufacturers began phasing out ortho-phthalates. As development of various recycling means and methods of post-consumer—including methodologies to screen for and remove chemicals of concern in accordance with performance-based standard requirements—continues, this will give rise to additional opportunities for the uptake and use of post-consumer content. This in turn will expand the universe of available

¹⁹ Draft Determinations at 309.

²⁰ See email from Jane Rohde, RFCI Technical Consultant, to Lauren Tamboer, State of Washington Department of Ecology, re: "RFCI Survey Letter and Survey Results" (Jan. 27, 2022), and attachment thereto (the "RFCI Survey").

opportunities for post-consumer recycling of resilient flooring product, furthering both Ecology's and the resilient flooring industry's objectives.

Even where small amounts of ortho-phthalates may unintentionally be added to resilient vinyl flooring that includes recycled content, it is critical that Ecology weigh any related consumer health or safety risk associated with such recycled content against the significant environmental and sustainability benefits associated with utilizing recycled content for beneficial use—including reductions in the rate of landfilling of these materials. If Ecology imposes overly burdensome restrictions on vinyl flooring products, the result could be a decrease in the beneficial reuse of recycled vinyl product and an increase in landfilling of such product, which is in direct opposition to the goals of the Program.

The utilization of pre-consumer and post-consumer recycled content in vinyl flooring products provides significant opportunity for continual improvement from a sustainability perspective. RFCI flooring manufacturer and supply chain members are investing substantial resources into research and development to determine how to improve the means and methods of recycling processes that chemically remove ortho-phthalates and heavy metals from recycled content—predominantly post-consumer recycled content—through performance-based standard testing. In order to ensure that regulatory burden does not become a roadblock to this innovation, Ecology should clarify that any restrictions imposed under the Program (such as limits on ortho-phthalate content for vinyl flooring products sold in Washington) relate only to *intentionally added* ortho-phthalates and are not applicable to any ortho-phthalates that are *unintentionally added* as a result of utilizing recycled content. Moreover, if Ecology does impose any such content limitations for intentionally added ortho-phthalates, the Department should evaluate whether a higher level is justified in the case of ortho-phthalate-containing recycled content, due to the various benefits of recycling and landfill avoidance.

IV. Regulatory Restrictions on Vinyl Flooring, If Any, Must Be Narrowly Tailored and Implementable.

If Ecology does move forward with a regulatory restriction related to ortho-phthalates, any such restrictions should be narrowly tailored to focus on actual risk. In addition, in crafting any such regulations, Ecology should consider the operational and logistical challenges manufacturers will face in ensuring that their products are compliant with the Program's requirements.

Regulatory Restrictions Should Be Tailored to Address High-Exposure Scenarios.

As noted throughout these comments and documented by the data submitted by RFCI members to Ecology, vinyl flooring generally no longer utilizes ortho-phthalates in the manufacturing process. And it is a poor use of Ecology's resources to expend effort related to regulating those vinyl flooring products that do contain low levels of unintentionally added ortho-phthalates. Instead, Ecology should utilize existing standards and work with stakeholders to establish a threshold amount in connection with any restriction.

Existing consensus standards that measure and limit the use of ortho-phthalates are already in widespread use; these standards should inform any regulatory effort that Ecology undertakes. For example, RFCI's *Rigid Core Flooring Certification Standard*, SCS-0011 (May 1, 2020)²¹ (known as "Assure Certified™") requires that products be tested in accordance with CPSC-CH-C1001-09.4 or GB/T 22048-2015 and further requires that "[p]roducts cannot exceed 1,000 PPM for individual or total ortho-phthalates." Similarly, NSF/ANSI 332, *Sustainability Assessment for Resilient Floor Coverings*, incorporates the same content threshold of 1,000 PPM for ortho-phthalates.²² ASTM F3414-20, *Standard Test Method for Determining Ortho-phthalate Concentration in Flooring Containing Polyvinyl Chloride*, provides a standardized method for measuring ortho-phthalate concentrations in vinyl flooring products.

These consensus and industry standards have already established thresholds for the use of ortho-phthalates in vinyl flooring products (and, in ASTM F3414-20, a standardized method for measuring ortho-phthalates). Ecology should utilize these existing standards to inform their decision-making as it relates to any potential restrictions imposed on vinyl flooring products under the Program.

Ecology Should Consider Indirect Environmental and Sustainability Impacts of Any Regulations.

As noted in Section III above, the inclusion of pre-consumer and post-consumer recycled content into new vinyl flooring represents a significant opportunity to enhance the environmental and sustainability benefits of vinyl flooring products. RFCI members continue to invest substantial resources into new technology to determine how to encourage widespread use of recycled product in a safe and efficient manner. However, overly restrictive and unduly burdensome regulations could have a chilling effect, causing manufacturers to shy away from these efforts.

RFCI and its members look forward to continuing work with Ecology to identify modifications to its regulatory efforts that may be appropriate in the context of resilient vinyl flooring that includes pre-consumer and post-consumer recycled content (including, but not limited to, substituting a reporting requirement for such products in place of a restriction that might apply to products composed only of virgin material).

Ecology Should Allow a Reasonable Timeframe for Implementation of Compliance Programs.

The Act provides that a "rule adopted to implement a regulatory determination involving a restriction on the manufacture, wholesale, distribution, sale, retail sale, or use of a priority

²¹ Available online at https://cdn.scsglobalservices.com/files/program_documents/SCS_STD_RigidCoreFlooring_V1-0_050620_0.pdf (note: updated revision slated for 2022 publication).

²² Available online at https://d2evkimvhatqav.cloudfront.net/documents/SU_NSF_332_Flooring_Insert_LT_EN_LSU27100812.pdf?mtime=20200716160801&focal=none.

consumer product containing a priority chemical may take effect no sooner than three hundred sixty-five days after the adoption of the rule.” RCW 70A.350.080(2)(b). Ecology should utilize an extended timeline for compliance (*e.g.*, five years from promulgation of final regulations) to ensure that industry has an appropriate timeline to incorporate any necessary formulation modifications into the manufacturing process. Moreover, this will provide increased assurance that both pre-consumer and post-consumer content included in resilient vinyl flooring products would not include ortho-phthalates.

Ecology Should Grandfather Manufactured/In Production Products.

The Act provides that a “restriction or prohibition on a priority chemical in a consumer product may include exemptions or exceptions, including exemptions to address existing stock of a product in commerce at the time that a restriction takes effect.”²³ As noted throughout these comments, vinyl flooring products presently in the market are not a significant source of ortho-phthalates and do not pose a health or safety risk to consumers or the environment. An exemption for already manufactured products as well as for products that are already in production (*i.e.*, at the time of promulgation of regulations) will remove significant cost and logistical challenges with no associated increase in risk, and is consistent with the Act’s directive.

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RFCI appreciates this opportunity to comment on Ecology’s Draft Determinations. We thank the Department for its continued engagement with RFCI, its members, and other stakeholders. We reiterate that, in light of the significant progress that has been made over the past decade in eliminating ortho-phthalates from the manufacture of new resilient vinyl flooring, no regulatory restrictions are necessary in the case of resilient vinyl flooring. Nonetheless, we look forward to continuing to work with the Department as it finalizes its regulatory determinations and begins crafting regulatory restrictions for resilient vinyl flooring, should any such regulations be deemed necessary.

Please contact RFCI counsel Allison D. Foley (adfoley@venable.com; 202-344-4416) with questions regarding these comments.

²³ RCW 70A.350.040(5).