Concise Explanatory Statement
Chapter 173-337 WAC
Safer Products Restrictions and Reporting

Summary of Rulemaking and Response to Comments

Washington State Department of Ecology
Olympia, Washington

May 2023, Publication 23-04-033

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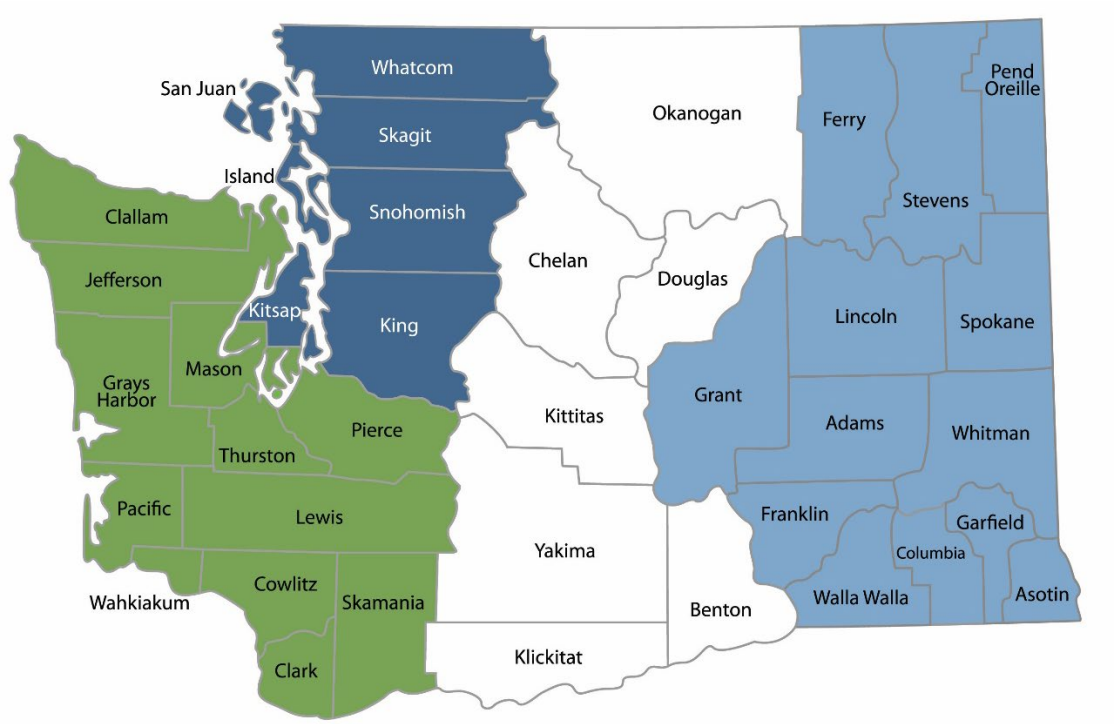

Region	Counties served	Mailing address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
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DEPARTMENT OF
ECOLOGY
State of Washington

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Introduction

The Washington State Department of Ecology (Ecology, we) developed this Concise Explanatory Statement to:

- Comply with section 325 of the Administrative Procedure Act (APA) that requires agencies to prepare a Concise Explanatory Statement (RCW 34.05.325[3]).
- Provide reasons for adopting the rule.
- Describe differences between the proposed rule and the adopted rule.
- Provide Ecology's response to public comments.

This Concise Explanatory Statement provides information on Ecology's rule adoption for:

Title:	Safer Products Restrictions and Reporting
WAC chapter:	173-337
Adopted:	May 31, 2023
Effective:	July 1, 2023

The Concise Explanatory Statement Appendices document includes the citation list, written comments, verbal testimony provided, and the proposed rule with track changes. To view the Concise Explanatory Statement Appendices document, visit our Safer Products Restrictions and Reporting webpage.[4]

To see more information related to this rulemaking or other Ecology rulemakings, visit our laws, rules, and rulemaking webpage.[5]

[3] https://app.leg.wa.gov/RCW/default.aspx?cite=34.05.325
[4] https://ecology.wa.gov/SPWArule
[5] https://ecology.wa.gov/About-us/How-we-operate/Laws-rules-rulemaking

Overview of this Rulemaking

On November 17, 2021, we announced the start of rulemaking[6] to develop a new chapter in the Washington Administrative Code. In January[7] and June[8] of 2022, we hosted four webinars to share information about the rulemaking process and invited the public to inform draft rule requirements. We used feedback from webinar attendees and stakeholder meetings to develop a preliminary draft rule.[9] In August 2022, we shared the preliminary draft rule with the public, provided a 20-day informal comment period, and hosted two webinars.[10]

On December 7, 2022, we proposed the formal draft rule[11] and shared rulemaking documents including the Preliminary Regulatory Analyses[12] and the SEPA Determination of Nonsignificance.[13] We accepted formal comments on the formal draft rule from December 7, 2022, through February 5, 2023. During the 60-day public comment period, we received a total of 954 comment submissions on the formal draft rule including verbal testimony[14] provided during the two January hearings.[15] We used that feedback to develop the adopted rule, this Concise Explanatory Statement, and the Final Regulatory Analyses.[16]

Ecology's director Laura Watson signed and adopted the new chapter on May 31, 2023.

Safer Products for Washington program

This rulemaking is Phase 4 in a repeating four-phase cycle that started four years ago under the Safer Products for Washington program.[17] In 2019, the Washington State

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[6] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/November2021_RukemakingAnnouncement.pdf

[7] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/January2022_PublicInputMeeting_Presentation.pdf

[8] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/June_2022_Webinar_Presentation.pdf

[9] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/PreliminaryDraftRuleLanguage_Cycle1_August2022.pdf

[10] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/August_2022_Webinar_Presentation.pdf

[11] https://ecology.wa.gov/Asset-Collections/Doc-Assets/Rulemaking/HWTR/WAC173-337_-21-01/Rulemaking-proposed-language-WAC-173-337-12-07-22

[12] https://apps.ecology.wa.gov/publications/SummaryPages/2204042.html

[13] https://apps.ecology.wa.gov/separ/Main/SEPA/Record.aspx?SEPANumber=202206037

[14] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/Proposed_Chapter_173-337WAC_Hearing_Transcript.pdf

[15] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/January_2023_Webinar_Presentation.pdf

[16] https://apps.ecology.wa.gov/publications/summarypages/2304032.html

[17] https://ecology.wa.gov/Waste-Toxics/Reducing-toxic-chemicals/Washington-s-toxics-in-products-laws/Safer-Products-for-Washington

Legislature passed the Pollution Prevention for Healthy People and Puget Sound Act to make consumer products safer for people and the environment. It marks a major milestone in how we prevent pollution from chemicals in everyday products, and it's one of the strongest laws on toxic chemicals in the nation.

Chapter 70A.350 RCW[18] gives us broad authority over toxic chemicals in the products people use every day in our homes, schools, and businesses. The law gives us authority to restrict chemicals in products when safer alternatives exist. This authority uniquely allows us to:

- Adopt restrictions through rulemaking instead of through statute—providing more opportunities for public involvement.
- Apply restrictions to a class of chemicals instead of restricting one chemical at a time.

The first cycle of Chapter 70A.350 RCW[18] requires we:

- Identify priority consumer products that are a significant source or use of priority chemicals and report to the Legislature. We submitted the Priority Consumer Products Report[19] to the Legislature in July 2020.
- Create a stakeholder advisory process. We established this process in 2019, documented the Stakeholder Engagement Process[20] in March 2020, and updated it in October 2021.
- Determine regulatory actions to increase transparency in product ingredients and reduce the use of priority chemicals in priority consumer products. We submitted the Regulatory Determinations Report[21] to the Legislature in June 2022.
- Adopt rules by June 1, 2023, that implement the regulatory actions reported to the Legislature.

Public engagement

The adopted rule is the result of a robust public outreach and involvement effort spanning four years. The following list includes examples of outreach methods and involvement opportunities.

- Websites:
    - Safer Products for Washington program webpage.[22]

[18] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350&full=true
[19] https://apps.ecology.wa.gov/publications/summarypages/2004019.html
[20] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/Stakeholder_Engagement%20_Process.pdf
[21] https://apps.ecology.wa.gov/publications/summarypages/2204018.html
[22] https://ecology.wa.gov/Waste-Toxics/Reducing-toxic-chemicals/Washington-s-toxics-in-products-laws/Safer-Products-for-Washington

    - Safer Products for Washington stakeholder webpage.[23]
    - Safer Products for Washington rulemaking webpage.[24]
- Webinars (24 webinars from 2019 to 2023).
    - Ecology documented feedback and presented to webinar attendees in real-time.
    - Visit the Safer Products for Washington stakeholder webpage[25] to find resources related to these events, such as question and answers, presentation slides, and attendee lists.
- Announcements via the Safer Products for Washington email list.[26]
- Focus sheets and public outreach materials, including:
    - Blog posts.
    - Social media content.
    - Infographics.
    - Videos in English[27] and Spanish.[28]
    - A storymap in English and Spanish.
    - Articles in trade journals.

  Find these resources on the Safer Products for Washington stakeholder webpage.[25]
- A public survey from November 2021 to January 2022, asking communities about harmful chemicals in consumer products.
    - We received nearly 400 responses, almost two percent of them in Spanish.
    - 95% of respondents said, “Yes, I am concerned about harmful chemicals in products.”
    - We discuss the results of the public survey in videos in English[29] and Spanish.[30]
- An engagement workshop with community-based organizations and the public.

[23] https://www.ezview.wa.gov/site/alias__1962/37555/safer_products_for_washington.aspx
[24] https://ecology.wa.gov/SPWArule
[25] https://www.ezview.wa.gov/site/alias__1962/37555/safer_products_for_washington.aspx
[26] https://public.govdelivery.com/accounts/WAECY/subscriber/new?topic_id=WAECY_113
[27] https://youtu.be/FmnKPbiocHs
[28] https://youtu.be/453Gu1Xmtnc
[29] https://youtu.be/lHFEK0bf4Ns
[30] https://youtu.be/Iug8tD568Q0

- Public comment periods:
  - Draft Priority Consumer Products Report (January 2020).[31]
  - Working Draft Criteria for Safer (February 2021).[32]
  - Working Draft Criteria for Feasible and Available (February 2021).[33]
  - Draft Regulatory Determinations Report (November 2021).[34]
  - Preliminary draft rule (August 2022).[35]
  - Proposed formal draft rule (December 2022).[36]

[31] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/Draft_Report_Priority_Consumer_Products.pdf

[32] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/SaferProductsWA_WorkingDraftCriteria_Safer.pdf

[33] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/SaferProductsWA_WorkingDraftCriteria_FeasibleAvailable.pdf

[34] https://apps.ecology.wa.gov/publications/documents/2104047.pdf

[35] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/PreliminaryDraftRuleLanguage_Cycle1_August2022.pdf

[36] https://ecology.wa.gov/Asset-Collections/Doc-Assets/Rulemaking/HWTR/WAC173-337_-21-01/Rulemaking-proposed-language-WAC-173-337-12-07-22

Reasons for Adopting the Rule

Ecology adopted a new chapter in the Washington Administrative Code—Chapter 173-337 WAC – Safer Products Restrictions and Reporting. This new chapter:

- Creates a regulatory program to reduce the use of toxic chemicals in consumer products and increase product ingredient transparency, as directed by Chapter 70A.350 RCW.[36]
- Carries out the regulatory actions outlined in the Regulatory Determinations Report[37] to the Legislature—Ecology submitted in June, 2022.
- Establishes reporting requirements and restrictions for priority consumer products that contain priority chemicals.

Toxic chemicals in consumer products expose people:

- Directly from items such as personal care products, furniture, and household products.
- Indirectly from their environment—air you breathe, water you drink, and food you eat.

In 2019, Washington state codified the Pollution Prevention for Healthy People and Puget Sound Act in Chapter 70A.350 RCW – Toxic Pollution[36] to make consumer products safer for people and the environment. Chapter 70A.350 RCW directs Ecology to restrict chemicals in products when safer alternatives exist.

Ecology adopted Chapter 173-337 WAC to:

- Reduce the use of toxic chemicals in products, which will reduce:
  - Consumers' exposure to toxic chemicals.
  - The amount of toxic chemicals entering the environment.
- Increase product ingredient transparency.
- Encourage changes in the broader marketplace, both nationally and internationally.

[36] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350&full=true
[37] https://apps.ecology.wa.gov/publications/summarypages/2204018.html

Differences Between the Proposed Rule and the Adopted Rule

RCW 34.05.325(6)(a)(ii)[38] requires Ecology describe the differences between the text of the proposed rule as published in the Washington State Register (WSR) and the text of the rule as adopted—other than editing changes—and state the reasons for the differences.

The adopted rule filed on May 31, 2023 in WSR 23-12-044 and the proposed rule filed on December 7, 2022 in WSR 22-24-107 have some differences. Ecology made these changes:

- In response to comments we received.
- To ensure clarity and consistency.
- To meet the intent of the authorizing statute.
- To facilitate effective program implementation.

The following content describes the changes and Ecology's reasons for making them. This section does not include changes made solely to correct typographical errors. We included the proposed rule language and indicated changes made using strikethroughs to note removed text and underlines to note added text.

Section 010 – Authority and purpose

Change (2)(b)(i)

- Changed text to be consistent with Chapter 70A.350 RCW.
- Change

  (2)(b)(i) Actions applicable persons must take related to manufacturing, distributing, or selling or offering to sell (including but not limited to wholesale, online, or retail), ~~or distributing~~ priority consumer products containing priority chemicals in and into Washington state.

Section 015 – Applicability

Change (1)

- Changed text to be consistent with Chapter 70A.350 RCW.

[38] https://app.leg.wa.gov/RCW/default.aspx?cite=34.05.325

- Change

  (1) This chapter applies to any person who manufactures, ~~sells, or~~ distributes, sells, or offers to sell a priority consumer product that contains a priority chemical in or into Washington state.

Change (2)(b)

- Changed text to improve clarity and to be consistent with the requirements in section 055 – previously owned priority consumer products.
- Change

  ~~(2)(b) Consumer products purchased outside of Washington state.~~

Change (2)(d)

- Changed text in response to comment suggesting the chapter allow a person to use repair parts or replacement parts manufactured after the effective date of the restriction.
- Change

  ~~(2)(d) Priority consumer product repair and replacement parts manufactured before the effective date of the restriction~~.

Change (2)(e)

- Changed text to improve clarity and in response to comment suggesting the chapter allow a person to use repair parts or replacement parts manufactured after the effective date of the restriction.
- Change

  ~~(2)(e) Priority consumer products refurbished with repair or replacement parts manufactured before the effective date of the restriction.~~

Section 020 – Requesting an exemption

Change (2)

- Changed text to improve clarity and in response to comment suggesting the chapter not limit the basis for requesting an exemption.
- Change

  (2) Ecology will use objective factors ~~such as (2)(a) – (2)(c) in this section~~ including, but not limited to, the following, ~~in their~~ when evaluating ~~evaluation of~~ exemption requests.

Change (5)

- Changed text in response to comment suggesting the chapter temporarily delay compliance while Ecology considers exemption requests.

- Change

  (5) A person who satisfies the requirements in subsections (3) and (4) ~~submits a request for exemption to Ecology~~ is temporarily exempt from the requirements from which they requested until Ecology makes a decision on their request. ~~must comply with the requirements of this chapter until Ecology approves their request.~~

Change (6)

- Changed text in response to comment suggesting the chapter include an appeal process for entities whose initial exemption request is denied.
- Change

  (6) A person adversely affected by ecology's initial decision about a request for exemption from the requirements of this chapter may request review of that decision by the ecology director or their designee. Ecology's final decision is not subject to further administrative review.

Section 025 – Acronyms and definitions

Change "external enclosure"

- Changed text in response to comment suggesting the chapter use the UL's definition[39] of "external enclosure" and in response to comment suggesting Ecology clarify the applicability of internal parts.
- Change

  "**External enclosures**" means the ~~plastic~~ external part of the finished product that renders inaccessible all or any parts of the equipment that may otherwise present a risk of electric shock, or retards propagation of flame initiated by electrical disturbances occurring within, or both.

Change "intended for indoor use"

- Changed text in response to comment suggesting changing definitions for "intended for indoor use" and "intended for outdoor use" because the definitions conflict.
- Change

  "**Intended for indoor use**" means a product ~~designed primarily for use or storage inside buildings~~ **not** "intended for outdoor use" as defined in this chapter.

[39] https://ulstandards.ul.com/

Change “intended for outdoor use”

- Changed text in response to comment suggesting changing definitions for “intended for indoor use” and “intended for outdoor use” because the definitions conflict.
- Change

  “**Intended for outdoor use**” means a product designed for use in an outdoor setting and to maintain functionality after exposure to ultraviolet (UV) light, exposure to water, or immersion ~~when used outdoors for an extended time~~.

Change “intentionally added chemical”

- Changed text in response to comment suggesting the chapter exempt products made with recycled material.
- Change

  “**Intentionally added priority chemical**” or “**intentionally added**” means a chemical that serves an intended function in the final product or in the manufacturing of the product or part of the product. Chemicals present from the use of recycled materials are **not** considered “intentionally added priority chemicals.”

Change “previously owned product”

- Changed text to improve clarity and in response to a comment suggesting Ecology clarify its intent with regards to previously owned products.
- Change

  “**Previously owned product**” means a priority consumer product owned by an end user or consumer, regardless of whether that end user purchased the product.

Change “priority chemical”

- Changed text to simplify definition.
- Change

  “**Priority chemical**” means ~~the following~~ a chemical~~s~~ or chemical class identified by ecology as a priority chemical under chapter 70A.350 RCW, or a chemical or chemical class identified in chapter 70A.350 RCW, or both~~es used as, used in, or put in a priority consumer product~~.

  - ~~Perfluoroalkyl and polyfluoroalkyl substances~~
  - ~~Phthalates~~
  - ~~Organohalogen flame retardants~~
  - ~~Flame retardants, as identified by the Washington State Department of Ecology under Chapter 70A.430 RCW~~
  - ~~Phenolic compounds~~

- ~~A chemical identified by Ecology as a priority chemical under Chapter 70A.350 RCW~~

Change “sell”

- Changed text to be consistent with Chapter 70A.350 RCW.
- Change

  “**Sell**” or “**offering to sell**” includes, but is not limited to, wholesale, online, and retail.

Section 055 – Previously owned priority consumer products

Change (2)(a)

- Changed text to simplify section.
- Change

  ~~(2)(a) Priority consumer product that has a reporting requirement~~.

Change (2)(b)

- Changed text to improve clarity.
- Change

  (2)(b) Priority consumer product manufactured before the effective date of the restriction, as listed in WAC 173-337-110 through WAC 173-337-114, even if the priority consumer product was refurbished after the effective date of the restriction.

Change (2)(c)

- Changed text in response to comment suggesting the chapter allow a person to refurbish a priority consumer product with repair parts and replacement parts regardless of the manufacture date of the repair parts and replacement parts.
- Change

  (2)(c) Repair part or replacement part that was made to refurbish a priority consumer product that was manufactured before the effective date of the restriction, as listed in WAC 173-337-110 through WAC 173-337-114.

Change (2)(d)

- Changed text to improve clarity.
- Change

  ~~(2)(d) Priority consumer product refurbished with repair or replacement parts manufactured before the effective date of the restriction, as listed in WAC 173-337-110 through WAC 173-337-114.~~

Section 060 – Reporting requirements

Change (1)(a)

- Changed text to improve clarity.
- Change

  (1)(a) This section applies to a manufacturer of a priority consumer product required to submit a notification to Ecology, as listed in WAC 173-337-110, 173-337-112, and 173-337-114. This chapter refers to the ~~that~~ person submitting the notification as the "reporting party."

Change (3)(b)(ii)

- Changed text to be consistent with Chapter 173-334 WAC.[40]
- Change

  (3)(b)(ii) The product category or product categories that contain~~s~~ the priority chemical. The product category means the "brick" level of the GS1 Global Product Classification (GPC) standard, which identifies products that serve a common purpose, are of a similar form and material, and share the same set of category attributes.

Section 110 – PFAS

Change (1)(a)(i)(A)

- Changed text to improve clarity.
- Change

  (1)(a)(i)(A) Aftermarket stain-resistant treatments for application ~~applied~~ to textile and leather consumer products.

Change (1)(a)(i)(B)

- Changed text to improve clarity.
- Change

  (1)(a)(i)(B) Aftermarket water-resistant treatments for application ~~applied~~ to textile and leather consumer products.

Change (1)(a)(i)(C)

- Changed text to improve clarity.
- Change

  (1)(a)(i)(C) Aftermarket stain-resistant and water-resistant treatments for application ~~applied~~ to textile and leather consumer products.

[40] https://apps.leg.wa.gov/wac/default.aspx?cite=173-334

Change (2)(c)(i)(A)

- Changed text to improve clarity.
- Change

  (2)(c)(i)(A) Priority consumer product described in (a) of this subsection manufactured before January 1, 2025, even if the priority consumer product was refurbished after January 1, 2025.

Change (2)(c)(i)(B)

- Changed text in response to comment suggesting the chapter allow a person to refurbish a priority consumer product with repair parts and replacement parts regardless of the manufacture date of the repair parts and replacement parts.
- Change

  (2)(c)(i)(B) Repair part or replacement part that was made to refurbish a priority consumer product described in (a) of this subsection that was manufactured before January 1, 2025.

Change (2)(c)(i)(C)

- Changed text to improve clarity.
- Change

  ~~(2)(c)(i)(C) Priority consumer product refurbished with repair or replacement parts manufactured before January 1, 2025.~~

Change (3)(c)(i)(A)

- Changed text to improve clarity.
- Change

  (3)(c)(i)(A) Priority consumer product described in (a) of this subsection manufactured before January 1, 2026, even if the priority consumer product was refurbished after January 1, 2026.

Change (3)(c)(i)(B)

- Changed text in response to comment suggesting the chapter allow a person to refurbish a priority consumer product with repair parts and replacement parts regardless of the manufacture date of the repair parts and replacement parts.
- Change

  (3)(c)(i)(B) Repair part or replacement part that was made to refurbish a priority consumer product described in (a) of this subsection that was manufactured before January 1, 2026.

Change (3)(c)(i)(C)

- Changed text to improve clarity.

- Change

  ~~(3)(c)(i)(C) Priority consumer product refurbished with repair or replacement parts manufactured before January 1, 2026.~~

Change (4)(b)

- Changed text in response to comment suggesting Ecology make the reporting timelines clearer in the chapter.
- Change (4)(b)

  (b) Compliance schedule.

  (i) The reporting requirement in (c) of this subsection takes effect on January 1, 2024.

  (ii) The reporting party must submit a notification to Ecology in accordance with WAC 173-337-060:

  (A) By January 31, 2025.

  (B) Annually thereafter by January 31.

Section 111 – Ortho-phthalates

Change (2)(c)(i)

- Changed text to improve clarity.
- Change

  (2)(c)(i) Priority consumer product described in (a) of this subsection manufactured before January 1, 2025, even if the priority consumer product was refurbished after January 1, 2025.

Change (2)(c)(ii)

- Changed text in response to comment suggesting the chapter allow a person to refurbish a priority consumer product with repair parts and replacement parts regardless of the manufacture date of the repair parts and replacement parts.
- Change

  (2)(c)(ii) Repair part or replacement part that was made to refurbish a priority consumer product described in (a) of this subsection that was manufactured before January 1, 2025.

Change (2)(c)(iii)

- Changed text to improve clarity.
- Change

  ~~(2)(c)(iii) Priority consumer product refurbished with repair or replacement parts manufactured before January 1, 2025.~~

Section 112 – Flame retardants

Change (1)(a)(ii)(B)

- Changed text in response to comment suggesting the applicability exclude sensors, dimmers, controllers, and life safety systems and devices.
- Change

  (1)(a)(ii)(B) Consumer products that receive power only when they are hardwired into and permanently part of the fixed electrical wiring of a building. This includes wiring devices, control devices, electrical distribution equipment, ~~and~~ lighting equipment, sensors, dimmers, controllers, and life safety systems and devices.

Change (1)(a)(iii)(B)

- Changed text in response to comment suggesting Ecology clarify the applicability of internal parts.
- Change

  (1)(a)(iii)(B) Internal parts that are removable and replaceable, but not accessible once the finished product is in its fully assembled and functional form

Change (1)(b)(i)(A)

- Changed text to clarify definition.
- Change

  (1)(b)(i)(A) "**Group 1**" means a person or entity whose worldwide gross sales equal or exceed $1,000,000,000 in 2022.

Change (1)(b)(i)(B)

- Changed text to clarify definition.
- Change

  (1)(b)(i)(B) "**Group 2**" means a person or entity whose worldwide gross sales are less than $1,000,000,000 in 2022.

Change (1)(b)(ii)(B)

- Changed text to improve clarity.
- Change

  (1)(b)(ii)(B) The~~is~~ compliance schedule in (ii) of this subsection does **not** ~~include~~ apply to the following priority consumer products.

Change (1)(b)(ii)(B)(bullet)

- Changed text in response to comment suggesting Ecology include the size limitation for screens in this category to better align with New York's definition of "electronic display."

- Change

  (1)(b)(ii)(B)(bullet) Displays with a screen area smaller than or equal to one hundred square centimeters or fifteen and one-half square inches

Change (1)(b)(iii)(A)

- Changed text in response to comment suggesting industry have more time to comply with the restriction for Group 1 entities.
- Change

  (1)(b)(iii)(A) The restriction in (c) of this subsection takes effect on January 1, ~~2026~~ 2027, for persons or entities in Group 1 who manufacture, sell, or distribute a priority consumer product described in (a) of this subsection.

Change (1)(b)(iii)(A)

- Changed text to improve clarity.
- Change

  (1)(b)(iii)(A) The ~~This~~ compliance schedule in (iii) of this subsection ~~includes~~ applies to:

Change (1)(b)(iii)(A)(bullet)

- Changed text in response to comment suggesting Ecology include the size limitation for screens in this category to better align with New York's definition of "electronic display."
- Change

  (1)(b)(iii)(A)(bullet) Displays with a screen area smaller than or equal to 100 square centimeters or 15.5 square inches.

Change (1)(b)(iii)(B)

- Changed text to improve clarity.
- Change

  (1)(b)(iii)(B) The ~~This~~ compliance schedule in (iii) of this subsection does **not** ~~include~~ apply to the following priority consumer products described in (a) of this subsection.

Change (1)(b)(iv)(A)

- Changed text in response to comment suggesting industry have more time to comply with the restriction for Group 2 entities.
- Change

  (1)(b)(iv)(A) The restriction in (c) of this subsection takes effect on January 1, ~~2027~~ 2028, for persons or entities in Group 2 who manufacture, sell, or distribute a priority consumer product described in (a) of this subsection.

Change (1)(b)(iv)(A)

- Changed text to improve clarity.
- Change

  (1)(b)(iv)(A) The ~~This~~ compliance schedule in (iv) of this subsection ~~includes~~ applies to:

Change (1)(b)(iv)(A)(bullet)

- Changed text in response to comment suggesting Ecology include the size limitation for screens in this category to better align with New York's definition of "electronic display."
- Change

  (1)(b)(iv)(A)(bullet) Displays with a screen area smaller than or equal to 100 square centimeters or 15.5 square inches.

Change (1)(b)(iv)(B)

- Changed text to improve clarity.
- Change

  (1)(b)(iv)(B) The ~~This~~ compliance schedule in (iv) of this subsection does **not** ~~include~~ apply to the following priority consumer products described in (a) of this subsection.

Change (1)(c)(i)(A)

- Changed text to improve clarity.
- Change

  (1)(c)(i)(A) Priority consumer product described in (a) of this subsection manufactured before the applicable compliance schedules in (b) of this subsection, even if the priority consumer product was refurbished after the applicable compliance schedules in (b) of this subsection.

Change (1)(c)(i)(B)

- Changed text in response to comment suggesting the chapter allow a person to refurbish a priority consumer product with repair parts and replacement parts regardless of the manufacture date of the repair parts and replacement parts.
- Change

  (1)(c)(i)(B) Repair part or replacement part that was made to refurbish a priority consumer product described in (a) of this subsection that was manufactured before the applicable compliance schedules in (b) of this subsection.

Change (1)(c)(i)(C)

- Changed text to improve clarity.

- Change

  ~~(1)(c)(i)(C) Priority consumer product refurbished with repair or replacement parts manufactured before the applicable compliance schedules in (b) of this subsection.~~

Change (1)(c)(ii)(A), (B), and (C)

- Changed text in response to comment suggesting the rebuttable presumption include “within homogeneous material.”
- Changes

  (1)(c)(ii)(A) Total bromine concentrations above 1,000 ppm in the homogeneous material indicate intentionally added organohalogen flame retardants.

  (1)(c)(ii)(B) Total chlorine concentrations above 1,000 ppm in the homogeneous material indicate intentionally added organohalogen flame retardants.

  (1)(c)(ii)(C) Total fluorine concentrations above 1,000 ppm with less than 5,000 ppm total phosphorous in the homogeneous material indicate intentionally added organohalogen flame retardants.

Change (2)(a)(ii)(B)

- Changed text in response to comment suggesting the applicability exclude sensors, dimmers, controllers, and life safety systems and devices.
- Change

  (2)(a)(ii)(B) Consumer products that receive power only when they are hardwired into and permanently part of the fixed electrical wiring of a building. This includes wiring devices, control devices, electrical distribution equipment, ~~and~~ lighting equipment, sensors, dimmers, controllers, and life safety systems and devices.

Change (2)(a)(iii)(B)

- Changed text in response to comment suggesting Ecology clarify the applicability of internal parts.
- Change

  (2)(a)(iii)(B) Internal parts that are removable and replaceable, but not accessible once the finished product is in its fully assembled and functional form.

Change (2)(b)

- Changed text in response to comment suggesting Ecology make the reporting timelines clearer in the chapter.
- Change (2)(b)

  (b) Compliance schedule.

  (i) The reporting requirement in (c) of this subsection takes effect on January 1, 2024.

(ii) The reporting party must submit a notification to Ecology in accordance with WAC 173-337-060:

(A) By January 31, 2025.

(B) Annually thereafter by January 31.

Change (2)(c)(i)(A), (B), and (C)

- Changed text in response to comment suggesting the rebuttable presumption include "within homogeneous material."
- Changes

  (2)(c)(i)(A) Total bromine concentrations above 1,000 ppm in the homogeneous material indicate intentionally added organohalogen flame retardants.

  (2)(c)(i)(B) Total chlorine concentrations above 1,000 ppm in the homogeneous material indicate intentionally added organohalogen flame retardants.

  (2)(c)(i)(C) Total fluorine concentrations above 1,000 ppm with less than 5,000 ppm total phosphorous in the homogeneous material indicate intentionally added organohalogen flame retardants.

Change (3)(b)

- Changed text in response to comment suggesting Ecology make the reporting timelines clearer in the chapter.
- Change (3)(b)

  (b) Compliance schedule.

  (i) The reporting requirement in (c) of this subsection takes effect on January 1, 2024.

  (ii) The reporting party must submit a notification to Ecology in accordance with WAC 173-337-060:

  (A) By January 31, 2025.

  (B) Annually thereafter by January 31.

Change (3)(c)(ii)(A), (B), (C), and (D)

- Changed text in response to comment suggesting the rebuttable presumption include "within homogeneous material."
- Changes

  (3)(c)(ii)(A) Total bromine concentrations above 1,000 ppm in the homogeneous material indicate intentionally added organohalogen flame retardants.

  (3)(c)(ii)(B) Total chlorine concentrations above 1,000 ppm in the homogeneous material indicate intentionally added organohalogen flame retardants.

  (3)(c)(i)(C) Total fluorine concentrations above 1,000 ppm with less than 5,000 ppm total phosphorous in the homogeneous material indicate intentionally added organohalogen flame retardants.

(3)(c)(ii)(D) Organophosphate flame retardants listed in (c)(i) of this subsection (individual or combined) at concentrations above 1,000 ppm in the homogeneous material indicate intentionally added organophosphate flame retardants.

Change (4)(c)(ii)(A), (B), (C), and (D)

- Changed text in response to comment suggesting the rebuttable presumption include "within homogeneous material."
- Changes

  (4)(c)(ii)(A) Total bromine concentrations above 1,000 ppm in the homogeneous material indicate intentionally added organohalogen flame retardants.

  (4)(c)(ii)(B) Total chlorine concentrations above 1,000 ppm in the homogeneous material indicate intentionally added organohalogen flame retardants.

  (4)(c)(i)(C) Total fluorine concentrations above 1,000 ppm with less than 5,000 ppm total phosphorous in the homogeneous material indicate intentionally added organohalogen flame retardants.

  (4)(c)(ii)(D) Organophosphate flame retardants listed in (c)(i) of this subsection (individual or combined) at concentrations above 1,000 ppm in the homogeneous material indicate intentionally added organophosphate flame retardants.

Section 114 – Bisphenols

Change (2)(b)

- Changed text in response to comment suggesting Ecology make the reporting timelines clearer in the chapter.
- Change (2)(b)

  (b) Compliance schedule.

  (i) The reporting requirement in (c) of this subsection takes effect on January 1, 2024.

  (ii) The reporting party must submit a notification to Ecology in accordance with WAC 173-337-060:

  (A) By January 31, 2025.

  (B) Annually thereafter by January 31.

Change (3)(a)

- Changed text in response to comment suggesting the applicability exclude consumer products regulated by the FDA as medical devices.
- Change

  (a) **Applicability**.

  (i) Priority consumer products. This subsection applies to thermal paper.

(ii) This subsection does **not** apply to consumer products regulated by the FDA as medical devices.

Change (3)(b)

- Changed text in response to comment suggesting industry have more time to comply with the restriction.
- Change

  (3)(b) **Compliance schedule**. The restriction in (c) of this subsection takes effect on January 1, ~~2025~~ 2026.

Change (3)(c)

- Changed text in response to comment suggesting the restriction include "intentionally added" instead of the numeric limit.
- Change

  (3)(c) Restriction.

  (i) No person may manufacture, sell, or distribute a priority consumer product described in (a) of this subsection that contains intentionally added bisphenols ~~more than 200 ppm of any individual bisphenol~~.

  This does **not** apply to a priority consumer product described in (a) of this subsection manufactured before January 1, ~~2025~~ 2026.

  (ii) Ecology presumes the detection of bisphenol concentrations above 200 ppm indicate intentionally added bisphenols.

  (iii) Manufacturers may rebut this presumption by submitting a statement to ecology that includes the following information.

  (A) The name and address of the person submitting the statement.

  (B) A statement that a bisphenol was **not** intentionally added. Provide credible evidence supporting that statement and include information, data, or sources relevant to demonstrate that a bisphenol was **not** intentionally added.

Commenter Index

Ecology accepted formal comments on the proposed rule during the 60-day public comment period that closed on February 5, 2023. We received a total of 954 comment submissions on the proposed rule including verbal testimony shared during the January hearings. Some submissions included multiple comments and several submissions represented many individuals or organizations. We accepted formal comments via:

- The online comment tool on Ecology's webpage (written).
- U.S. mail (written).
- The Safer Products for Washington email (written).
- Two online public hearings held on January 18 and 19, 2023 (verbal).

Table 1. Commenter index – non form letters lists each commenter, the topics they commented on, and the comment code. To see Ecology's response to your comment, find your name or organization in the following table and go to the section for your comment topic.

If you submitted a form letter, see **Table 2. Commenter index – form letters** and Ecology's responses in section 3.0.

Table 1. Commenter index – non form letters

Name	Affiliation	Submittal method	Topic	Comment code
Anonymous, Anonymous	Self	Written	Miscellaneous – accidental submissions	4.0.D
Bailey, Amanda	Self	Written	Miscellaneous – Cosmetics Bill	4.0.A
Birnbaum, Linda	Scholar in Residence at Duke University	Verbal	Rulemaking process –support public health	1.1.B
Blackstock, Bill	Resilient Floor Covering Institute	Written	SPWA cycle 1 – hazard assessment – ortho-phthalate SPWA cycle 1 – regulatory determinations – Ortho-phthalates Definitions – phthalates Ortho-phthalates – timing – support Ortho-phthalates – existing stock – support Ortho-phthalates – restriction – support Ortho-phthalates – restriction – too low	1.3.B.6 1.3.D.4 2.3.H 2.11.B 2.11.C 2.11.D.2 2.11.D.3
Carbone, Lauralee	Self	Written	Rulemaking process –support public health	1.1.B
Carignan, Courtney	Self	Written	Rulemaking process –support public health SPWA cycle 1 – chemical classes – support	1.1.B 1.3.A.2
Conneely, Eileen	American Chemistry Council	Written	SPWA cycle 1 – regulatory determinations – Ortho-phthalates	1.3.D.4

Name	Affiliation	Submittal method	Topic	Comment code
Evans, Ashley	King County Hazardous Waste Management Program	Written	Rulemaking process –support public health Previously owned products – effective date	1.1.B 2.6.A
Fields, Mary	Self	Written	Miscellaneous – Cosmetics Bill	4.0.A
Fitzpatrick, Kristin	Self	Written	Miscellaneous – Cosmetics Bill	4.0.A
Fox, Patrick	The International Bromine Council	Written	SPWA cycle 1 – chemical class – OFR oppose SPWA cycle 1 – alternatives – insufficient Flame retardants – applicability – battery powered	1.3.A.5 1.3.C.1 2.12.A.7

Name	Affiliation	Submittal method	Topic	Comment code
Gann, Ben	American Chemistry Council and North American Flame Retardant Alliance	Written	SPWA cycle 1 – chemical classes – oppose	1.3.A.1
			SPWA cycle 1 – chemical class – OFR oppose	1.3.A.5
			SPWA cycle 1 – hazard assessment – best available science	1.3.B.2
			SPWA cycle 1 – hazard assessment – fire safety	1.3.B.3
			SPWA cycle 1 – hazard assessment – inconsistent	1.3.B.4
			SPWA cycle 1 – hazard assessment – GreenScreen	1.3.B.5
			SPWA cycle 1 – alternatives – insufficient	1.3.C.1
			SPWA cycle 1 – alternatives – conflict	1.3.C.5
			Preliminary Regulatory Analyses – best practices	1.4.A
			Preliminary Regulatory Analyses – analysis	1.4.C
			Preliminary Regulatory Analyses – LBA	1.4.D
			Requesting an exemption – basis for exemption	2.2.A
			Requesting an exemption – appeal	2.2.C
			Definitions – consumer product – commercial and industrial	2.3.A.2
			Definitions – electronic display – New York	2.3.B.3
			Definitions – external enclosure – UL	2.3.C.1
			Definition – inaccessible electronic component – functional form	2.3.E.3
			Definition – intended for indoor use	2.3.F.1
			Definition – intended for outdoor use	2.3.F.2
			Definition – electrical product	2.3.I
			Reporting – known or reasonably ascertainable	2.7.A
			Reporting – timing – delay	2.7.C.2
			Confidential business information – ensure	2.8.A
			Chemical classes – groups	2.9.B
			Chemical classes – list of CAS RN	2.9.C
			Flame retardants – applicability – list	2.12.A.1
			Flame retardants – timing – groups	2.12.B.2
			Flame retardants – timing – delay	2.12.B.4

Name	Affiliation	Submittal method	Topic	Comment code
Gann, Ben	American Chemistry Council	Verbal	SPWA cycle 1 – chemical class – OFR oppose	1.3.A.5
Gann, Ben	American Chemistry Council and North American Flame Retardant Alliance	Written	SPWA cycle 1 – chemical class – OFR oppose SPWA cycle 1 – hazard assessment – inconsistent SPWA cycle 1 – hazard assessment – GreenScreen	1.3.A.5 1.3.B.4 1.3.B.5
Giffin, Amy	Self	Written	Miscellaneous – Cosmetics Bill	4.0.A
Golden, Lisa	Self	Written	Rulemaking process – general support	1.1.A
Gurol, Kamuron	King County Wastewater Treatment Division	Written	Rulemaking process –support public health	1.1.B
Hancock, John	Self	Written	Rulemaking process –support public health	1.1.B
Harmon, Patrick	BASF Corporation	Written	SPWA cycle 1 – chemical class – otho-phthalates SPWA cycle 1 – hazard assessment – best available science SPWA cycle 1 – hazard assessment – transparent Preliminary Regulatory Analyses – best practices	1.3.A.4 1.3.B.2 1.3.B.7 1.4.A

Name	Affiliation	Submittal method	Topic	Comment code
Harms, Luke	Whirlpool Corporation	Written	SPWA cycle 1 – chemical class – OFR oppose SPWA cycle 1 – alternatives – none available Rule applicability – repair parts – manufacture date Chemical classes – list of CAS RN Flame retardants – applicability – list Flame retardants – applicability – PVC Flame retardants – timing – delay	1.3.A.5 1.3.C.2 2.1.F 2.9.C 2.12.A.1 2.12.A.6 2.12.B.4
Hill, Mary	Self	Written	Rulemaking process –support public health	1.1.B
Himes, Laura	Self	Written	Rulemaking process – general support	1.1.A
Hirschler, Marcelo	Self	Written	SPWA cycle 1 – chemical class – OFR oppose SPWA cycle 1 – hazard assessment – fire safety SPWA cycle 1 – alternatives – insufficient	1.3.A.5 1.3.B.3 1.3.C.1
Hobby, Clare	TCO Certified	Verbal	Rulemaking process – general support SPWA cycle 1 – alternatives – available	1.1.A 1.3.C.4
Hoenstine, Traci Lynn	Self	Written	Rulemaking process – general support	1.1.A
Honma, Hiroki	Self	Written	Flame retardants – applicability – heating elements	2.12.A.10
Hooper, Engrid	Self	Written	Miscellaneous – Cosmetics Bill	4.0.A
Intveld, Rose	Self	Written	Rulemaking process –support public health	1.1.B
Jacobs, Leo	Self	Written	SPWA cycle 1 – hazard assessment – fire safety SPWA cycle 1 – alternatives – insufficient Preliminary Regulatory Analyses – burden OFRs	1.3.B.3 1.3.C.1 1.4.F

Name	Affiliation	Submittal method	Topic	Comment code
Jahl, Lydia	Green Science Policy Institute	Written	SPWA cycle 1 – chemical class – OFR support SPWA cycle 1 – regulatory determinations – PFAS notification SPWA cycle 1 – regulatory determinations – PFAS support SPWA cycle 1 – regulatory determinations – OFRs – foam	1.3.A.6 1.3.D.2 1.3.D.3 1.3.D.7
Jahl, Lydia	Green Science Policy Institute	Verbal	Rulemaking process –support public health SPWA cycle 1 – chemical class – OFR support SPWA cycle 1 – alternatives – available	1.1.B 1.3.A.6 1.3.C.4
Johnson, AJ	Washington State Council of Fire Fighters	Verbal	Rulemaking process –support public health SPWA cycle 1 – chemical class – OFR support SPWA cycle 1 – alternatives – available	1.1.B 1.3.A.6 1.3.C.4

Name	Affiliation	Submittal method	Topic	Comment code
Keane, John	Association of Home Appliance Manufacturers	Written	Rulemaking process – general oppose SPWA cycle 1 – chemical class – OFR oppose SPWA cycle 1 – hazard assessment – fire safety SPWA cycle 1 – alternatives – none available SPWA cycle 1 – alternatives – conflict SPWA cycle 1 – regulatory determinations – OFRs – product availability Preliminary Regulatory Analyses – burden OFRs Rule applicability – repair parts – manufacture date Requesting an exemption – appeal Definitions – electronic display – integrated Definitions – external enclosure – UL Definitions – external enclosure – outer casing Chemical classes – list of CAS RN Flame retardants – applicability – list Flame retardants – applicability – appliances Flame retardants – applicability – PVC Flame retardants – applicability – 25 grams Flame retardants – applicability – rear side Flame retardants – timing – delay	1.2.A 1.3.A.5 1.3.B.3 1.3.C.2 1.3.C.5 1.3.D.6 1.4.F 2.1.F 2.2.C 2.3.B.1 2.3.C.1 2.3.C.4 2.9.C 2.12.A.1 2.12.A.5 2.12.A.6 2.12.A.11 2.12.A.14 2.12.B.4
Keeney, David	Self	Written	Rulemaking process – support more actions	1.1.D
Kooy, Steve	The Business and Institutional Furniture Manufacturers Association	Written	Rule applicability – recycled materials Reporting – timing – delay Reporting – tiered Reporting – product category Reporting – ranges – broader Confidential Business Information – process PFAS – credible evidence	2.1.H 2.7.C.2 2.7.D 2.7.E.1 2.7.G.1 2.8.B 2.10.B.1
Kravas, Khristina	Self	Written	Ortho-phthalates – timing – delay	2.11.A

Name	Affiliation	Submittal method	Topic	Comment code
Losey, Barbara	Alkylphenols & Ethoxylates Research Council	Written	SPWA cycle 1 – regulatory determinations – APEs	1.3.D.8
Lovie, John	Self	Written	Rulemaking process – general support	1.1.A
Mccarter, Larry	Self	Written	Miscellaneous – biosolids	4.0.B
McDade, Kirsten	RE Sources	Written	Rulemaking process – general support Rulemaking process – support more actions Miscellaneous – biosolids	1.1.A 1.1.D 4.0.B
Miller, Bob	Albemarle Corp.	Written	SPWA cycle 1 – chemical class – OFR oppose SPWA cycle 1 – hazard assessment – fire safety SPWA cycle 1 – hazard assessment – inconsistent SPWA cycle 1 – hazard assessment – GreenScreen SPWA cycle 1 – alternatives – insufficient SPWA cycle 1 – alternatives – conflict Requesting an exemption – basis for exemption Requesting an exemption – appeal Definitions – consumer product – commercial and industrial Definitions – intended for indoor use Reporting – known or reasonably ascertainable Chemical classes – groups Chemical classes – list of CAS RN Flame retardants – applicability – list	1.3.A.5 1.3.B.3 1.3.B.4 1.3.B.5 1.3.C.1 1.3.C.5 2.2.A 2.2.C 2.3.A.2 2.3.F.1 2.7.A 2.9.B 2.9.C 2.12.A.1
Miller, Gillian	Ecology Center	Verbal	SPWA cycle 1 – alternatives – available	1.3.C.4
Miller, Pamela	Alaska Community Action on Toxics	Written	Rulemaking process – support vulnerable populations SPWA cycle 1 – alternatives – available	1.1.C 1.3.C.4

Name	Affiliation	Submittal method	Topic	Comment code
Minggang, Zhao	People's Republic of China	Written	SPWA cycle 1 – chemical class – OFR oppose Chemical classes – groups Chemical classes – list of CAS RN Flame retardants – applicability – list	1.3.A.5 2.9.B 2.9.C 2.12.A.1
Min-yung, Jun	Korean Agency for Technology and Standards	Written	SPWA cycle 1 – regulatory determinations – OFRs – product availability	1.3.D.6

Name	Affiliation	Submittal method	Topic	Comment code
Moyer, Daniel	Consumer Technology Association	Written	Rule applicability – repair parts – manufacture date Rule applicability – research and development Rule applicability – recycled materials Requesting an exemption – temporary exemption Definitions – electronic display – integrated Definitions – electronic display – small Definitions – external enclosure – finished Definitions – flame retardant Definitions – inaccessible electronic component – abuse Definitions – intended for indoor use Definitions – intentionally added chemical Previously owned products – repair parts Reporting – timing – tracking Chemical classes – oppose Chemical classes – list of CAS RN PFAS – rebuttable presumption Flame retardants – applicability – 25 grams Flame retardants – applicability – internal parts Flame retardants – timing – groups Flame retardants – timing – delay Flame retardants – restriction – numeric limit Flame retardants – rebuttable presumption Flame retardants – rebuttable presumption – homogeneous material Bisphenols – restriction – medical devices Bisphenols – restriction – timing delay Bisphenols – restriction – intentionally added	2.1.F 2.1.G 2.1.H 2.2.B 2.3.B.1 2.3.B.2 2.3.C.3 2.3.D 2.3.E.1 2.3.F.1 2.3.G 2.6.C 2.7.C.1 2.9.A 2.9.C 2.10.B.2 2.12.A.11 2.12.A.13 2.12.B.1 2.12.B.4 2.12.C.3 2.12.D.1 2.12.D.2 2.14.B.1 2.14.B.2 2.14.B.3

Name	Affiliation	Submittal method	Topic	Comment code
Mustico, Daniel	Outdoor Power Equipment Institute	Written	SPWA cycle 1 – chemical classes – oppose Rule applicability – repair parts – non-road mobile machinery	1.3.A.1 2.1.C
Osimitz, Thomas	Self	Written	SPWA cycle 1 – chemical class – OFR oppose SPWA cycle 1 – hazard assessment – insufficient	1.3.A.5 1.3.B.1
Palin, Catherine	Alliance for Automotive Innovation	Written	Rulemaking process – wait for Legislature Rule applicability – repair parts – motorized vehicles Federal preemption Chemical classes – oppose Chemical classes – list of CAS RN PFAS – carpets and rugs	1.2.B 2.1.B 2.4 2.9.A 2.9.C 2.10.A
Patrick, Levi	Self	Written	Rulemaking process – support more actions	1.1.D
Peele, Cheri	Toxic-Free Future and Clean Production Action	Written	Rulemaking process – general support Rulemaking process – support vulnerable populations SPWA cycle 1 – chemical classes – support SPWA cycle 1 – regulatory determinations – support restrictions Ortho-phthalates – restriction – too high Flame retardants – timing – including Flame retardants – restriction – too high Alkylphenol ethoxylates – restriction – too high	1.1.A 1.1.C 1.3.A.2 1.3.D.1 2.5 2.11.D.1 2.12.B.3 2.12.C.2 2.13
Peele, Cheri	Toxic-Free Future	Verbal	Rulemaking process – general support Rulemaking process –support public health Rulemaking process – support vulnerable populations SPWA cycle 1 – chemical classes – support	1.1.A 1.1.B 1.1.C 1.3.A.2
Preciado-Partida, Kathy	MD Retired Obstetrician-Gynecologist	Verbal	Rulemaking process – general support Rulemaking process –support public health	1.1.A 1.1.B

Prero, Judah	Chemical Users Coalition	Written	SPWA cycle 1 – chemical classes – oppose	1.3.A.1
			SPWA cycle 1 – hazard assessment – insufficient	1.3.B.1
			SPWA cycle 1 – hazard assessment – fire safety	1.3.B.3
			SPWA cycle 1 – alternatives – insufficient	1.3.C.1
			SPWA cycle 1 – regulatory determinations – household products	1.3.D.10
			Rule applicability – repair parts – FAA	2.1.A
			Rule applicability – existing stock	2.1.E
			Rule applicability – repair parts – manufacture date	2.1.F
			Rule applicability – research and development	2.1.G
			Rule applicability – recycled materials	2.1.H
			Requesting an exemption – temporary exemption	2.2.B
			Definitions – consumer product – packaging	2.3.A.1
			Definitions – electronic display – New York	2.3.B.3
			Definitions – external enclosure	2.3.C.2
			Definitions – inaccessible electronic component – foreseeable	2.3.E.2
			Definitions – intended for outdoor use	2.3.F.3
			Definitions – intentionally added chemical	2.3.G
			Definitions – manufacture	2.3.J
			Previously owned products – oppose	2.6.B
			Reporting – timing – tracking	2.7.C.1
			Chemical classes – list of CAS RN	2.9.C
			PFAS – rebuttable presumption	2.10.B.2
			Flame retardants – applicability – consumer	2.12.A.3
			Flame retardants – applicability – narrow	2.12.A.4
			Flame retardants – applicability – sensors	2.12.A.8
			Flame retardants – applicability – hard wired	2.12.A.9
			Flame retardants – timing – delay	2.12.B.4
			Flame retardants – restriction – numeric limit	2.12.C.3
			Bisphenols – restriction – medical devices	2.14.B.1
			Bisphenols – restriction – timing delay	2.14.B.2
			Bisphenols – restriction – intentionally added	2.14.B.3

Name	Affiliation	Submittal method	Topic	Comment code
Rabiah, Janan	Association for Contract Textiles	Written	Rule applicability – recycled materials Reporting – one person Reporting – multiple entities Reporting – timing – delay Reporting – brick level Reporting – total fluorine Reporting – ranges – less than Reporting – CBI PFAS – credible evidence	2.1.H 2.7.B.1 2.7.B.2 2.7.C.2 2.7.E.2 2.7.F 2.7.G.2 2.7.H 2.10.B.1
Rodgers, Darrell	Self	Written	Miscellaneous – no attachment	4.0.C
Rossi, Mark	Clean Production Action	Verbal	Rulemaking process – general support SPWA cycle 1 – chemical class – OFR support	1.1.A 1.3.A.6

Name	Affiliation	Submittal method	Topic	Comment code
Shestek, Tim	American Chemistry Council	Written	SPWA cycle 1 – chemical class – OFR oppose SPWA cycle 1 – hazard assessment – best available science SPWA cycle 1 – hazard assessment – fire safety SPWA cycle 1 – hazard assessment – ortho-phthalates SPWA cycle 1 – alternatives – conflict SPWA cycle 1 – regulatory determinations – OFRs oppose Preliminary Regulatory Analyses – best practices Preliminary Regulatory Analyses – NAICS Preliminary Regulatory Analyses – analysis Preliminary Regulatory Analyses – LBA cost Preliminary Regulatory Analyses – burden OFRs State Environmental Policy Act Definitions – violation Previously owned products – oppose Confidential business information – ensure Chemical classes – groups	1.3.A.5 1.3.B.2 1.3.B.3 1.3.B.6 1.3.C.5 1.3.D.5 1.4.A 1.4.B 1.4.C 1.4.E 1.5 2.3.K 2.6.B 2.8.A 2.9.B
Silverman, Stacya	Self	Written	Miscellaneous – Cosmetics Bill	4.0.A
Skuza, Magdalena	Self	Written	Rulemaking process – support more actions	1.1.D
Strehler, Brooke	Self	Written	Rulemaking process –support public health	1.1.B
Swearingen, Shawn	Alliance for Telomer Chemistry Stewardship	Written	SPWA cycle 1 – chemical class – PFAS SPWA cycle 1 – hazard assessment – inconsistent SPWA cycle 1 – alternatives – insufficient	1.3.A.3 1.3.B.4 1.3.C.1

Name	Affiliation	Submittal method	Topic	Comment code
Swick, Derek	Can Manufacturers Institute	Written	SPWA cycle 1 – hazard assessment – insufficient SPWA cycle 1 – regulatory determinations – bisphenols Rule applicability – retailers Bisphenols – rebuttable presumption	1.3.B.1 1.3.D.9 2.1.I 2.14.A
Swick, Derek	Can Manufacturers Institute	Verbal	Rule applicability – retailers	2.1.I
Tabor, Robert	Carrier Corporation	Written	Flame retardants – applicability – life safety	2.12.A.12
Tan, Shirlee	Public Health – Seattle & King County	Verbal	Rulemaking process – general support Rulemaking process –support public health	1.1.A 1.1.B
Tatro, B.	Self	Written	Rulemaking process –support public health	1.1.B
Tester, John	Self	Written	Miscellaneous – accidental submissions	4.0.D
Thorson, Kate	Self	Written	Rulemaking process –support public health	1.1.B
Town, Mattie	Self	Written	Rulemaking process –support public health	1.1.B
Trim, Heather	Zero Waste Washington	Verbal	SPWA cycle 1 – regulatory determinations – PFAS notification	1.3.D.2
Valeriano, Laurie	Toxic-Free Future	Verbal	Rulemaking process –support public health SPWA cycle 1 – chemical class – OFR support	1.1.B 1.3.A.6

Name	Affiliation	Submittal method	Topic	Comment code
Valeriano, Laurie	Toxic-Free Future (on behalf of Brandi Hyatt from Yakima County)	Verbal	Rulemaking process –support public health	1.1.B
Wasil, Jeff	National Marine Manufacturers Association	Written	Rule applicability – recreational boats	2.1.D
Watters, Heidi	Self	Written	Rulemaking process – general support	1.1.A

Name	Affiliation	Submittal method	Topic	Comment code
Yamamoto, Emi	The Japanese Electric and Electronic Industrial Associations	Written	SPWA cycle 1 – chemical class – OFR oppose Rule applicability – repair parts – manufacture date Rule applicability – research and development Requesting an exemption – temporary exemption Definitions – electronic display – integrated Definitions – external enclosure Definitions – intended for indoor use Definitions – intentionally added chemical Previously owned products – oppose Chemical classes – oppose Chemical classes – list of CAS RN Flame retardants – applicability – EEE Flame retardants – applicability – narrow Flame retardants – applicability – 25 grams Flame retardants – timing – groups Flame retardants – timing – delay Flame retardants – restriction – effective date Flame retardants – restriction – numeric limit Flame retardants – rebuttable presumption Bisphenols – restriction – medical devices Bisphenols – restriction – timing delay	1.3.A.5 2.1.F 2.1.G 2.2.B 2.3.B.1 2.3.C.2 2.3.F.1 2.3.G 2.6.B 2.9.A 2.9.C 2.12.A.2 2.12.A.4 2.12.A.11 2.12.B.1 2.12.B.4 2.12.C.1 2.12.C.3 2.12.D.1 2.14.B.1 2.14.B.2
Zhou, Zhengmao	China Association of Flame Retarded Materials	Written	SPWA cycle 1 – chemical class – OFR oppose SPWA cycle 1 – alternatives – fire risk	1.3.A.5 1.3.C.3
Zimmerman, Tambra	Self	Written	Miscellaneous – Cosmetics Bill	4.0.A

Table 2. Commenter index – form letters (FLs)

Name	Submittal method	FL code
Ackerman, Shelly	Written	3.0.E
Acosta, Javier	Written	3.0.A
Adams, Brie	Written	3.0.B
Agarenzo, Marla	Written	3.0.D
Ahern, Karen	Written	3.0.E
Alexander, Danny	Written	3.0.A
Allen, Maggi	Written	3.0.B
Allen, Kathleen	Written	3.0.B
Allison, Greg	Written	3.0.D
Alllen, Everitt	Written	3.0.D
Alonso, Joyce	Written	3.0.E
Alt, Brenda	Written	3.0.B
Amador, Jaime	Written	3.0.D
Amos, Larin	Written	3.0.C
Amos, Neal	Written	3.0.D
Anderson, Glen	Written	3.0.E
Anderson, Laurel	Written	3.0.B
Anderson, Michael	Written	3.0.C
Anderson, Richard	Written	3.0.B
Anderson, Richard	Written	3.0.C
Anderson, Seth	Written	3.0.E
Anderson, Sharon	Written	3.0.C
Anderson, Susan	Written	3.0.A
Andrews, Scott	Written	3.0.D
Andriolo, Diana	Written	3.0.D
Angell, Thomas	Written	3.0.E
Angelshaug, Randy	Written	3.0.D
Angove-sowa, Liana	Written	3.0.B
Ann, Rev.	Written	3.0.D
Antonie, Heidi	Written	3.0.C
Apple, Bob	Written	3.0.D
April, Kiessling	Written	3.0.C
Arguetty, Danny	Written	3.0.E
Ariessohn, Florence	Written	3.0.E
Armstrong, David	Written	3.0.C
Arntson, David	Written	3.0.E
Arocho, Lesley	Written	3.0.B
Aron, Keri	Written	3.0.E
Atkins, Katie	Written	3.0.E
Austin, Jeromey	Written	3.0.D
Awla, Daman	Written	3.0.E
Azar, Laura	Written	3.0.A
B, Shary	Written	3.0.E

Name	Submittal method	FL code
Badgley, Linda	Written	3.0.A
Badgley, Linda	Written	3.0.C
Bailey, Connie	Written	3.0.C
Bailey, Richard	Written	3.0.A
Bailey, Stephen	Written	3.0.A
Bailey, Stephen	Written	3.0.E
Baird, Leona	Written	3.0.A
Baker, Rodney	Written	3.0.A
Baker, Rodney	Written	3.0.C
Bale, Sandra	Written	3.0.C
Ball, Kathleen	Written	3.0.C
Ballinger, Susan	Written	3.0.E
Bancroft, David	Written	3.0.C
Barnes, Nancy	Written	3.0.D
Barnum, Wayne	Written	3.0.A
Barras, Kevin	Written	3.0.E
Barrus, Michelle	Written	3.0.B
Barton, Byron	Written	3.0.A
Bauman, Anita	Written	3.0.B
Bayne, Linda	Written	3.0.B
Bayne, Linda	Written	3.0.C
Beatty, Danny	Written	3.0.E
Becker, Kathy	Written	3.0.C

Name	Submittal method	FL code
Beeler, Ron	Written	3.0.C
Beeson, Sarah	Written	3.0.E
Benedict, Derek	Written	3.0.E
Bennett, Dale	Written	3.0.B
Benoit, George	Written	3.0.A
Benoit, George	Written	3.0.D
Berg, John	Written	3.0.A
Berg, Alfred	Written	3.0.B
Berglund, Greg	Written	3.0.A
Berglund, Greg	Written	3.0.C
Bewick, Lisa	Written	3.0.B
Biale, Cheryl	Written	3.0.E
Bickmore, Carlyn	Written	3.0.B
Biedebach, Heidi	Written	3.0.C
Birnel, John	Written	3.0.E
Blackwood, Barbara	Written	3.0.E
Blegen, Herman	Written	3.0.B
Blomberg, Nickolas	Written	3.0.C
Bloom, Marlys	Written	3.0.B
Boaterre, Qat	Written	3.0.E
Bomengen, Brian	Written	3.0.C
Borgmann, James	Written	3.0.C

Name	Submittal method	FL code
Born, Jean	Written	3.0.D
Borst, Tom	Written	3.0.E
Bowden, Tina	Written	3.0.C
Bowdish, Penny	Written	3.0.B
Bowlin, Patricia	Written	3.0.A
Boyce, Sally	Written	3.0.E
Boyd, Marc	Written	3.0.D
Brackeen, Debra	Written	3.0.B
Brackeen, Debra	Written	3.0.D
Brackett, Robert	Written	3.0.A
Brackett, Robert	Written	3.0.C
Bradley, Mark	Written	3.0.E
Branam, Richard	Written	3.0.B
Brandt, Diana	Written	3.0.B
Brandt, Eric	Written	3.0.C
Brauhn, Alice	Written	3.0.B
Broughton, Eldon	Written	3.0.E
Brown, Shannon	Written	3.0.D
Brownell, Robert	Written	3.0.D
Bruehl, Nancy	Written	3.0.B
Brumbaugh, Helen	Written	3.0.D
Budde, Ken	Written	3.0.B
Budrow, John	Written	3.0.C

Name	Submittal method	FL code
Bunch, Joyce	Written	3.0.C
Burke, Rebecca	Written	3.0.E
Burns, Cathleen	Written	3.0.E
Burrows, Shirley	Written	3.0.C
Burton, Camren	Written	3.0.B
Butler, Robert	Written	3.0.D
Buttelman, Michele	Written	3.0.C
Cain, Georgiann	Written	3.0.B
Calllanan, Maureen	Written	3.0.C
Camara, Betty	Written	3.0.B
Campbell, Nancy	Written	3.0.A
Carampot, Cheryl	Written	3.0.C
Carlson-Roell	Written	3.0.C
Carone, Gary	Written	3.0.B
Carroll, Daniel	Written	3.0.A
Carroll, Linda	Written	3.0.E
Carter, Michael	Written	3.0.A
Carter, Tim	Written	3.0.B
Carvlin, Katherine	Written	3.0.E
Cashatt, Robin	Written	3.0.C
Cater, Diane	Written	3.0.A
Cater, Diane	Written	3.0.B
Chamberlin, Curtis	Written	3.0.D

Name	Submittal method	FL code
Christenson, Lanny	Written	3.0.B
Churchill, AC	Written	3.0.E
Ciarlo, Debra	Written	3.0.C
Cinkovich, Susan	Written	3.0.D
Clemons, Leona	Written	3.0.A
Cluck, Dorcas	Written	3.0.A
Cole, Donald	Written	3.0.C
Cole, Jackie	Written	3.0.D
Cole, Victoria	Written	3.0.E
Coleman, Russell	Written	3.0.D
Compton, Clayton	Written	3.0.E
Comstock, Rena	Written	3.0.B
Condon, Linda	Written	3.0.B
Conlan, Mike	Written	3.0.E
Conn, Gary	Written	3.0.A
Conn, Gary	Written	3.0.D
Conner, Laura	Written	3.0.B
Cooper, Gayle	Written	3.0.A
Cooper, Laurie	Written	3.0.E
Cooper, Ramon	Written	3.0.D
Copeland, Bill	Written	3.0.C
Cota, Cassandra	Written	3.0.D
Coulter, Connie	Written	3.0.C

Name	Submittal method	FL code
Coulter, Constance	Written	3.0.D
Courtright, Yvonne	Written	3.0.C
Craig, Lee	Written	3.0.C
Crawford, Collin	Written	3.0.B
Crigger, Vicki	Written	3.0.D
Crossley, Diane	Written	3.0.B
Crown, Pamela	Written	3.0.C
Culliton, Ann Marie	Written	3.0.E
Cummins, Paul	Written	3.0.B
Cushing, Therese	Written	3.0.E
Cutsforth, Diana	Written	3.0.B
Cutshaw, Barbara	Written	3.0.C
Czarnecki, Roberta	Written	3.0.A
Czarnecki, Roberta	Written	3.0.D
Dahl, Randy	Written	3.0.A
Daigle, Leonard	Written	3.0.C
Dakin, Bruce	Written	3.0.A
Dakin, Bruce	Written	3.0.C
Dale, Rebecca	Written	3.0.D
Davis, Carol	Written	3.0.D
Davis, Christine	Written	3.0.C
Davis, Deborah	Written	3.0.B
Davis, Deborah	Written	3.0.C

Name	Submittal method	FL code
Davis, Gerald	Written	3.0.A
Davis, Gerald	Written	3.0.C
Davis, Jane	Written	3.0.C
Davis, Kimberly	Written	3.0.C
Deal, Brandie	Written	3.0.E
Decker, Kim	Written	3.0.A
DeGabriele, Denise	Written	3.0.E
DeGroot, Lynn	Written	3.0.B
DeLauder, Theresa	Written	3.0.A
Deller, Jeanne	Written	3.0.B
DeLong, Sara	Written	3.0.C
Deneen, Judy	Written	3.0.D
Devlin, Felicity	Written	3.0.E
Diamond, Robby	Written	3.0.C
Dichesare, Teresa	Written	3.0.B
Dichesare, Teresa	Written	3.0.D
Dickerson, Mary Lou	Written	3.0.E
Dietzman, Helene	Written	3.0.B
Dirks, Gary	Written	3.0.C
DM, Dawnell	Written	3.0.E
Doctor, Jacqueline	Written	3.0.C
Donaghy, Howard	Written	3.0.B
Donaghy, Howard	Written	3.0.C
Donaghy, Howard	Written	3.0.D
Donovan, Charlene	Written	3.0.E
Dooley, Theodore	Written	3.0.D
Doublin, Merle	Written	3.0.D
Dougherty, Paulene	Written	3.0.D
Douglas, Kenneth	Written	3.0.A
Doumit, Ann	Written	3.0.C
Doumit, James	Written	3.0.C
Dowson, Eleanor	Written	3.0.E
Duren, Tom	Written	3.0.D
Dymoke, Steve	Written	3.0.E
Eakin, Daniel	Written	3.0.A
Eaton, Ondine	Written	3.0.E
Eberlein, Maria	Written	3.0.B
Eberlein, Maria	Written	3.0.C
Ebert, Rudy	Written	3.0.A
Edain, Marianne	Written	3.0.E
Edmison, Sean	Written	3.0.E
Edwards, Carolyn	Written	3.0.D
Eggers, K	Written	3.0.E
Ehr, Diane	Written	3.0.B

Name	Submittal method	FL code
Ehrhard, Connie	Written	3.0.D
Eichner, David	Written	3.0.A
Eichorn, Michael	Written	3.0.C
Eister, Leah	Written	3.0.E
Eldred, David	Written	3.0.C
Elkins, Sharon	Written	3.0.C
Ellis, E	Written	3.0.E
Ellis, Jan	Written	3.0.E
Engles, Larry	Written	3.0.D
Eschen, Fred	Written	3.0.E
Evans, Barry	Written	3.0.C
Evans, Rebecca	Written	3.0.E
Faber, Nadine	Written	3.0.B
Fahrenwald, Gill	Written	3.0.E
Faires, April	Written	3.0.A
Faires, April	Written	3.0.B
Faires, April	Written	3.0.D
Fantle, Dena	Written	3.0.E
Featherkile, April	Written	3.0.A
Feldman, Derek	Written	3.0.D
Feller, Melode	Written	3.0.B
Fisher, Gerald	Written	3.0.A
Fitzjarrald, Yvette	Written	3.0.C

Name	Submittal method	FL code
FlahertyBrygider, Miriam	Written	3.0.A
Fleischacker, Carol	Written	3.0.B
Fleming, JoAnne	Written	3.0.B
Flynn, Joy	Written	3.0.B
Foss, Karin	Written	3.0.B
Foss, Karin	Written	3.0.C
Foss Karin	Written	3.0.D
Foubert, Cathy	Written	3.0.D
Fountain, Marc	Written	3.0.C
Fournier, Marie	Written	3.0.D
Fox, Michael	Written	3.0.B
Francis, Nancy	Written	3.0.A
Fray, Charles	Written	3.0.D
Frazier, Patsy	Written	3.0.C
French, Bridget	Written	3.0.B
French, Claudia	Written	3.0.B
Fretz, Jerry	Written	3.0.D
Frombach, Rowena	Written	3.0.C
Frombach, Rowena	Written	3.0.D
Fronczak, Stanley	Written	3.0.B
Fry, Elizabeth	Written	3.0.E
Fulton, Jim	Written	3.0.B

Name	Submittal method	FL code
Fulton, Jim	Written	3.0.C
Fulton, Jim	Written	3.0.D
Fureby, Ardis	Written	3.0.C
Gabriel, John	Written	3.0.D
Gallagher, Kevin	Written	3.0.E
Gallagher, Loretta	Written	3.0.C
Gamino, Roberta	Written	3.0.C
Ganje, Sohalia	Written	3.0.E
Gardner, Alicia	Written	3.0.E
Gary, Klein	Written	3.0.B
Gassert, Betty	Written	3.0.C
Gebaroff, Linda	Written	3.0.C
Gefroh, Deborah	Written	3.0.A
Gemmell, Rene’	Written	3.0.A
Gentry, Helen	Written	3.0.B
Gentry, Helen	Written	3.0.C
George, Robert	Written	3.0.B
George, Robert	Written	3.0.D
Gerig, Diane	Written	3.0.D
Gibelyou, Melinda	Written	3.0.B
Gibson, Forrest	Written	3.0.C
Gieszler, Deborah	Written	3.0.C
Gieszler, Jeffrey	Written	3.0.D

Name	Submittal method	FL code
Gilbert, Ralph	Written	3.0.A
Ginn, Sedgie	Written	3.0.C
Glass, Rebecca	Written	3.0.A
Glass, Rebecca	Written	3.0.E
Goad, Meloey	Written	3.0.D
Goble, Andrew	Written	3.0.C
Golden, Jerry	Written	3.0.B
Golden, Jerry	Written	3.0.C
Golden, Jerry	Written	3.0.D
Gomes, John	Written	3.0.C
Gonzales, Pedro	Written	3.0.C
Goodloe, Deborah	Written	3.0.B
Goodman, Jeremy	Written	3.0.C
Goolsby, Mary	Written	3.0.E
Gordon, Arthur	Written	3.0.A
Gosho, Cathleen	Written	3.0.E
Goulter, Ron	Written	3.0.D
Gower, Gene	Written	3.0.D
Grace, Kerri	Written	3.0.E
Graff, Sharon	Written	3.0.A
Graham, Margaret	Written	3.0.E
Graham, Robert	Written	3.0.D
Greene, Donna	Written	3.0.A

Name	Submittal method	FL code
Greenland, Jason	Written	3.0.D
Grimes, Lisa	Written	3.0.A
Grimes, Lisa	Written	3.0.D
Grimshaw, Shelley	Written	3.0.B
Gross, Heidi	Written	3.0.D
Grossman, Ben	Written	3.0.D
Guillot, Monica	Written	3.0.E
Gunter, Douglas	Written	3.0.D
Guthrie, Randy	Written	3.0.E
Hackett, Kelly	Written	3.0.C
Haferman, Shannon	Written	3.0.E
Halcomb, Lisa	Written	3.0.B
Haley, Kristin	Written	3.0.C
Hammond, Preston	Written	3.0.C
Haney, Mark	Written	3.0.C
Hansen, Judith	Written	3.0.D
Harnden, Kathy	Written	3.0.A
Harnden, Kathy	Written	3.0.B
Harnden, Kathy	Written	3.0.C
Harper, Patricia	Written	3.0.D
Harrell, Linda	Written	3.0.C
Harris, Elizabeth	Written	3.0.C

Name	Submittal method	FL code
Harris, Jenae	Written	3.0.A
Harrison, Cheryl	Written	3.0.E
Harrison-Smith, Jeremy	Written	3.0.E
Hart, Deborah	Written	3.0.B
Hart, Donald	Written	3.0.C
Hartley, Teresa	Written	3.0.B
Hartt, Paul	Written	3.0.C
Hartzell, Tim	Written	3.0.B
Harvey, Anne	Written	3.0.E
Harvey, Clarence	Written	3.0.A
Hasey, Pam	Written	3.0.A
Haukur, Hazen	Written	3.0.A
Hayes, Jenny	Written	3.0.E
Hayes, John	Written	3.0.C
Hayes, Paulette	Written	3.0.C
Hayford, Teresa	Written	3.0.D
Hazelwood, John	Written	3.0.A
He, Al	Written	3.0.C
Headen, Donna	Written	3.0.B
Heinzingwe, Gladys	Written	3.0.A
Helgerson, Julie	Written	3.0.C

Name	Submittal method	FL code
Helmick, Robert	Written	3.0.A
Hembroff, Angela	Written	3.0.B
Hendershot, Tracy	Written	3.0.E
Hendrickson, Patricia	Written	3.0.B
Henling, Daniel	Written	3.0.E
Hennessy, John	Written	3.0.E
Henning, Karen	Written	3.0.C
Herald, Tabby	Written	3.0.D
Hereth, Kenneth	Written	3.0.D
Herr, Colleen	Written	3.0.B
Heywood, Susan	Written	3.0.B
Heywood, Susan	Written	3.0.D
Hiland, Clyde	Written	3.0.B
Hiland, Clyde	Written	3.0.D
Hinshaw, Diana	Written	3.0.A
Hixson, Tina	Written	3.0.B
Hobbs, Jana	Written	3.0.E
Hoffer, William	Written	3.0.E
Hoffert, Charles	Written	3.0.A
Hogan, Pat	Written	3.0.A
Holman, Cheron	Written	3.0.E
Holmes, Glenyss	Written	3.0.A

Name	Submittal method	FL code
Honea, Ray	Written	3.0.A
Hooper, Nelson	Written	3.0.D
Hoopman, Glenn	Written	3.0.A
Horat, Terri	Written	3.0.B
Horn, Diane	Written	3.0.E
Horn, Freya	Written	3.0.E
Howard, Eleanor	Written	3.0.B
Hoxsie, Betty	Written	3.0.A
Hoxsie, Betty	Written	3.0.D
Huber, Barry	Written	3.0.B
Huckleberry, Aeren	Written	3.0.D
Huffman, Kelly	Written	3.0.B
Hufford, Dianne	Written	3.0.B
Hughes, Barbara	Written	3.0.C
Hungeford, Chasity	Written	3.0.B
Hunley, Deborah	Written	3.0.D
Huntington, Elizabeth	Written	3.0.A
Hurst, Bardella	Written	3.0.C
Hurt, Janet	Written	3.0.E
Inverso, Marlene	Written	3.0.E
Irwin, Frances	Written	3.0.B
Jackson, Sharon	Written	3.0.C

Name	Submittal method	FL code
Jenney, Gregory	Written	3.0.D
Jennings, Trisha	Written	3.0.D
Jensen, Jerry	Written	3.0.D
Jessee, Kirk	Written	3.0.B
Johnson, Carol	Written	3.0.B
Johnson, Elizabeth	Written	3.0.E
Johnson, James	Written	3.0.C
Johnson, Lorraine	Written	3.0.E
Johnson, Rick	Written	3.0.B
Jonas, Jayme	Written	3.0.E
Jones, Jim	Written	3.0.A
Jones, Ken	Written	3.0.D
Jones, Max	Written	3.0.C
Jorgensen, Joanne	Written	3.0.B
Jorgensen, Nancy	Written	3.0.C
Juhl, Brandon	Written	3.0.E
Jurgens, Gail	Written	3.0.B
Jussila, Alan	Written	3.0.B
Jussila, Alan	Written	3.0.D
Kamionsky, Justine	Written	3.0.E
Kamuf, Sandi	Written	3.0.B
Katsma, Nathan	Written	3.0.C
Kelley, Susan	Written	3.0.D

Name	Submittal method	FL code
Kelly, Michelle	Written	3.0.E
Kendall, Rex	Written	3.0.A
Kendall, Tina	Written	3.0.A
Kennar, Robert	Written	3.0.C
Kerr, Virginia	Written	3.0.D
Keyser, Ruth	Written	3.0.B
Kimzey, Jennifer	Written	3.0.C
Kincaid, John	Written	3.0.A
Kincaid, John	Written	3.0.C
Kindler, Ned	Written	3.0.B
King, James	Written	3.0.B
Kinnick-Maes	Written	3.0.D
Knight, Ariana	Written	3.0.E
Knowles, Lorelette	Written	3.0.E
Knudsen, Rebecca	Written	3.0.C
Koch, Edward	Written	3.0.B
Kohary, Cathy	Written	3.0.C
Koller, Izaak	Written	3.0.E
Koski, David	Written	3.0.A
Kostal, Kate	Written	3.0.E
Kostelecky, Marna	Written	3.0.C
Kruschik, Terry	Written	3.0.C
L, Roseanne	Written	3.0.E

Name	Submittal method	FL code
LaFarge, John	Written	3.0.A
Lambert, John	Written	3.0.E
Lambros, Kathryn	Written	3.0.E
Lammon, Holiday	Written	3.0.D
Landback, Chris	Written	3.0.E
Lange, Susan	Written	3.0.B
Largent, Jack	Written	3.0.C
Larson, Jill	Written	3.0.A
LaRue, Erik	Written	3.0.E
Lasley, Lana	Written	3.0.A
Laurendeau, Danya	Written	3.0.C
Layton, D	Written	3.0.A
Layton, DuWayne	Written	3.0.C
Leach, Janice	Written	3.0.B
Leder, Barbara	Written	3.0.C
Leithold, Sandy	Written	3.0.A
Lenihan, C	Written	3.0.A
Lenz, Art	Written	3.0.A
Leonard, Linda	Written	3.0.B
Leth, Robert	Written	3.0.D
Letourneau, Phil	Written	3.0.E
Lewis, Gwendolyn	Written	3.0.B

Name	Submittal method	FL code
Liebert, Douglas	Written	3.0.A
Liebert, Robert	Written	3.0.B
Liebert, Robert	Written	3.0.C
Lightle, G	Written	3.0.B
Liming, Chris	Written	3.0.B
Lindsay, Linda	Written	3.0.E
Lipe, Hillary	Written	3.0.E
Littlefield, Robert	Written	3.0.C
Loeffler, Karen	Written	3.0.D
Lomax, Lou	Written	3.0.A
Lorenz, Lara	Written	3.0.E
Lott, Christina	Written	3.0.D
Lound, Melissa	Written	3.0.E
Love, Carol	Written	3.0.B
Lovejoy, Valerie	Written	3.0.C
Low, Stewart	Written	3.0.D
Lumper, Arlene	Written	3.0.A
Lumper, Arlene	Written	3.0.B
Lundgren, Eric	Written	3.0.D
Lundin, Susan	Written	3.0.A
Lundy, Mark	Written	3.0.C
Luru, Anton	Written	3.0.B
Lust, Emily	Written	3.0.E

Name	Submittal method	FL code
Lutey, Suzy	Written	3.0.A
Lyness, Dyan	Written	3.0.B
Lyon, Barbara	Written	3.0.D
Macarthur, Janice	Written	3.0.E
MacArthur, June	Written	3.0.C
MacDonald, Kristine	Written	3.0.C
MacGregor, Susan	Written	3.0.E
MacKinnon, Karynn	Written	3.0.D
Macoubrie, Ronald	Written	3.0.B
Mahala, Bersha	Written	3.0.B
Majul, Christine	Written	3.0.A
Maki, Douglas	Written	3.0.A
Mangino, Kristin	Written	3.0.A
Manley, Dale	Written	3.0.D
Markley, Michael	Written	3.0.D
Marks, Bridget	Written	3.0.C
Marshall, Ridge	Written	3.0.E
Martin, Andria	Written	3.0.A
Martin, Jeanne	Written	3.0.E
Martin, Jon	Written	3.0.A
Martin, Sandra	Written	3.0.E
Martinez, Jami	Written	3.0.C

Name	Submittal method	FL code
Mason, Judith	Written	3.0.E
Mason, Lora	Written	3.0.E
Massey, Duncan	Written	3.0.E
Massey, Wendy	Written	3.0.E
Matamoros, Ralph	Written	3.0.B
Mathis, Jodi	Written	3.0.D
Mattern, Ronalee	Written	3.0.A
Matthias, Mike	Written	3.0.D
Mattix, Shawn	Written	3.0.D
Maurin, Dan	Written	3.0.A
Maxwell, Cheryl	Written	3.0.B
Maylone, Kenneth	Written	3.0.A
McAllister, Michal	Written	3.0.D
McClarin, David	Written	3.0.C
McClure, Jennifer	Written	3.0.E
McCorkle, Bill	Written	3.0.A
McCullough, Susan	Written	3.0.B
McCutcheon, Maureen	Written	3.0.D
McElroy, Cameron	Written	3.0.C
McElroy, Cameron	Written	3.0.D
McElvy, Lisa	Written	3.0.C
McGill, Jen	Written	3.0.E

Name	Submittal method	FL code
McGowan, Matt	Written	3.0.B
McGowan, Matt	Written	3.0.D
Mcgraw, DesiRae	Written	3.0.C
McHargue, Terrie	Written	3.0.B
McKim, Yvonne	Written	3.0.B
Mckimmy, Scott	Written	3.0.C
Mckimmy, Scott	Written	3.0.D
McMahon, Nancy	Written	3.0.E
McNeill, Donna	Written	3.0.D
Mcnish, Cathy	Written	3.0.A
McNulty, Valerie	Written	3.0.A
McVay, Larry	Written	3.0.B
Mergargel, Paul	Written	3.0.A
Meier, Robert	Written	3.0.A
Melton, Bill	Written	3.0.B
Melton, SL	Written	3.0.B
Mensch, Jeff	Written	3.0.C
Mernone, John	Written	3.0.B
Mernone, John	Written	3.0.C
Metz, Nancy	Written	3.0.B
Michel, Jay	Written	3.0.A
Mickles, Marguerite	Written	3.0.B
Miller, Carolyn	Written	3.0.D

Name	Submittal method	FL code
Miller, Denise	Written	3.0.A
Miller, Iris	Written	3.0.D
Miller, Joseph	Written	3.0.A
Milo, Marie	Written	3.0.E
Mindermann, Rosemarie	Written	3.0.C
Miner, Ryan	Written	3.0.D
Mitchell, Sheila	Written	3.0.D
Mittelstaedt, Christina	Written	3.0.A
Moir, Cynthia	Written	3.0.A
Moir, Cynthia	Written	3.0.D
Moler, Dawn	Written	3.0.B
Monahan, Jo	Written	3.0.E
Moniot, Jane	Written	3.0.D
Moore, Jaime	Written	3.0.E
Moore, William	Written	3.0.B
Morrison, Gina	Written	3.0.D
Mull, George	Written	3.0.A
Mullen, Jen	Written	3.0.E
Murawski, Heather	Written	3.0.E
Myers, Jamie	Written	3.0.A
Neff, Sheri	Written	3.0.C

Name	Submittal method	FL code
Neils, James	Written	3.0.C
Neissl, Patticia	Written	3.0.B
Nelson, Faye	Written	3.0.A
Nelson-Suter, Dorothy	Written	3.0.A
Nelson-Suter, Dorothy	Written	3.0.D
Nicholson, Alice	Written	3.0.D
Nightingale, Terry	Written	3.0.E
Nitz, Annette	Written	3.0.D
Norcross, Todd	Written	3.0.C
Nyberg, Colleen	Written	3.0.D
Obina, Gervin	Written	3.0.D
Ochs, Rose	Written	3.0.E
Odegaard, Marlene	Written	3.0.B
Odermann, Judith	Written	3.0.A
Olefsky, Karin	Written	3.0.E
Olson, Priscilla	Written	3.0.A
ONeill, Lenora	Written	3.0.C
Ones, Dave	Written	3.0.D
Orlowski, Ray	Written	3.0.B
Orlowski, Ray	Written	3.0.D
Osborne, Pauline	Written	3.0.E

Name	Submittal method	FL code
Osterday, Stephen	Written	3.0.D
Ostle, Marjorie	Written	3.0.E
Ostrer, Allison	Written	3.0.E
Painter, Michael	Written	3.0.B
Pajor, Johnjoseph	Written	3.0.C
Parker, Doug	Written	3.0.D
Parker, Mark	Written	3.0.A
Parker, Mark	Written	3.0.B
Parker, Stacy	Written	3.0.C
Parsons, Sara	Written	3.0.E
Pascual, Laurel	Written	3.0.C
Pavcovich, Michelle	Written	3.0.E
Pavlov, Edythe	Written	3.0.B
Pavlov, Edythe	Written	3.0.C
Pearson, Karen	Written	3.0.A
Pearson, Marilyn	Written	3.0.B
Peden, Roy	Written	3.0.C
Pedersen, Dale	Written	3.0.D
Peltola, Daniel	Written	3.0.A
Penchoen, Gregory	Written	3.0.E
Pennington, Joan	Written	3.0.B

Name	Submittal method	FL code
Pennington, Michael	Written	3.0.B
Penuel, Carol	Written	3.0.A
Perri, Dave	Written	3.0.A
Peterson, Connie	Written	3.0.D
Peterson, Gerald	Written	3.0.B
Pettit, Scott	Written	3.0.C
Pfeiffer, Jodi	Written	3.0.B
Pfeiffer, Jodi	Written	3.0.C
Plunkett, Margaret	Written	3.0.D
Pond, Elsa	Written	3.0.E
Pond, Olivia	Written	3.0.E
Porter, James	Written	3.0.D
Poulin, Anita	Written	3.0.A
Poulin, Anita	Written	3.0.B
Prchal, Joan	Written	3.0.A
Prchal, Joan	Written	3.0.D
Prior, Larry	Written	3.0.C
Prior, Larry	Written	3.0.D
Psiropoulos, Michael	Written	3.0.B
Pullen, Cheryl	Written	3.0.B
Quinn, Kathleen	Written	3.0.E

Name	Submittal method	FL code
Radford, Lemoine	Written	3.0.E
Radtke, Shirley	Written	3.0.B
Rafferty, Sean	Written	3.0.C
Ragsdale, Dennis	Written	3.0.C
Rainville, Maureen	Written	3.0.B
Ramsay, Steve	Written	3.0.C
Ramsey, Roberta	Written	3.0.A
Rarrick, Greg	Written	3.0.D
Rarrick, Rhonda	Written	3.0.D
Rasor, Steve	Written	3.0.D
Ray, Damian	Written	3.0.C
Reeves, Steven	Written	3.0.E
Reina, Breanna	Written	3.0.C
Renner, Sandra	Written	3.0.C
Rhine, Cathy	Written	3.0.C
Rice, Patrick	Written	3.0.C
Rickman, Dianne	Written	3.0.B
Riffe, Sheila	Written	3.0.E
Rinehart, Clare	Written	3.0.B
Risser, Susan and Peter	Written	3.0.E
Robbins, June	Written	3.0.A
Robbins, June	Written	3.0.D

Name	Submittal method	FL code
Roberts, Glenda	Written	3.0.A
Robison, Jerry	Written	3.0.C
Rodden, Deon	Written	3.0.B
Rodden, Deon	Written	3.0.C
Rolfe, Lauren	Written	3.0.E
Rolland, Janna	Written	3.0.E
Ronalder, Pat	Written	3.0.C
Ronalder, Patricia	Written	3.0.B
Rose, Paula	Written	3.0.D
Rosen, Michael	Written	3.0.E
Rosen, Leslie	Written	3.0.E
Ruelas, Ruben	Written	3.0.D
Ryan, Lynne	Written	3.0.A
S, J	Written	3.0.E
S, Steve	Written	3.0.C
Saatzer, Carol	Written	3.0.D
Samnick, Sarah	Written	3.0.E
Sampson, Susan	Written	3.0.D
Sanborn, Julie	Written	3.0.B
Sandberg, Carol	Written	3.0.C
Sargent, Michelle	Written	3.0.A
Satchell, Joyce	Written	3.0.B
Sayre, Craig	Written	3.0.A

Name	Submittal method	FL code
Scheele, Michael	Written	3.0.A
Schippers, Bert	Written	3.0.D
Schmidt, Natalie	Written	3.0.E
Schmitz, K	Written	3.0.B
Schonwetter, Wendy	Written	3.0.E
Schumacher, Jennifer	Written	3.0.E
Schuster, Carolyn	Written	3.0.C
Scott, Amy	Written	3.0.E
Scott, Carol	Written	3.0.E
Scott, Darrell	Written	3.0.E
Scribner, Denee	Written	3.0.E
Seaman, Pamela	Written	3.0.C
Sebring, Mike	Written	3.0.E
Seifert, Brenda	Written	3.0.D
Seki, Yo	Written	3.0.A
Sharples, Tom	Written	3.0.C
Shaw, Vicki	Written	3.0.E
Shelly, Jeff	Written	3.0.B
Shepard, Roy	Written	3.0.A
Sherry, Elkins	Written	3.0.B
Showalter, Gary	Written	3.0.C

Name	Submittal method	FL code
Siegel, Mary	Written	3.0.C
Siekerman, Kathy	Written	3.0.B
Siekerman, Kathy	Written	3.0.C
Skari, Keri	Written	3.0.D
Skierski, John	Written	3.0.B
Smith, Anna	Written	3.0.E
Smith, Dixie	Written	3.0.C
Smith, Donna	Written	3.0.D
Smith, Harry	Written	3.0.A
Smith, Harry	Written	3.0.B
Smith, Johanna	Written	3.0.D
Smith, Lee	Written	3.0.B
Smith, Mark	Written	3.0.D
Smith, Robert	Written	3.0.A
Smithburg, Paul	Written	3.0.A
Smith-Weller, Terri	Written	3.0.E
Sojka, Leon	Written	3.0.B
Sokol, Elizabeth	Written	3.0.E
Soundview, Denice	Written	3.0.E
Spear, Vana	Written	3.0.E
Species, Scott	Written	3.0.E
Srsen, Lisa	Written	3.0.C
Stafford, Linda	Written	3.0.D

Name	Submittal method	FL code
Stair, Ruchi	Written	3.0.E
Staszak, Mike	Written	3.0.A
Staszak, Mike	Written	3.0.B
Staszak, Mike	Written	3.0.B
Stein, Mary	Written	3.0.B
Stetler, David	Written	3.0.E
Stewart, Kristin	Written	3.0.E
Stich, Kevin	Written	3.0.A
Stockdale, Victoria	Written	3.0.B
Stockton, Holly	Written	3.0.B
Stoklosa, Iwona	Written	3.0.B
Stone, Rev.	Written	3.0.D
Stotsenberg, Denise	Written	3.0.E
Stratton, Gary	Written	3.0.C
Street, Ann	Written	3.0.B
Stutzman, Crispin	Written	3.0.E
Sully, Jake	Written	3.0.C
Sumner, Shelly	Written	3.0.E
Sumpter, Ryan	Written	3.0.C
Sundquist, Elizabeth	Written	3.0.E
Svavarsson, Erica	Written	3.0.C

Name	Submittal method	FL code
Swanson, Judith	Written	3.0.B
Swanson MD, Stephen	Written	3.0.E
Tabor, Scott	Written	3.0.D
Taisacan, Hubert	Written	3.0.C
Talarico, Jim	Written	3.0.B
Talbert, Etta	Written	3.0.D
Tanner, Elizabeth	Written	3.0.E
Taylor, Nancy	Written	3.0.D
Teed, Cornelia	Written	3.0.E
Tena, Storgaard	Written	3.0.C
Ternes, Jim	Written	3.0.C
Test, Test	Written	3.0.C
Thatcher, Robert	Written	3.0.D
Thibodeau, Matt	Written	3.0.B
Thomas, David	Written	3.0.A
Thomas, Kathleen	Written	3.0.B
Thompson, John	Written	3.0.E
Thompson, Roger	Written	3.0.B
Thornsbury, Jean	Written	3.0.E
Tindle, James	Written	3.0.C
Tolley, Sheila	Written	3.0.A
Toohey, Robert	Written	3.0.C

Name	Submittal method	FL code
Torres, Juan	Written	3.0.D
Townsend-Tyers, Dorothy	Written	3.0.E
Travis, Barbara	Written	3.0.A
Travis, Barbara	Written	3.0.C
Travis, Travis	Written	3.0.C
Treffrey, Joanne	Written	3.0.D
Tropp, Ed	Written	3.0.B
Twedt, Lucinda	Written	3.0.B
Unget, Carmen	Written	3.0.B
Uota, Dean	Written	3.0.B
Uriarte, Yvonne	Written	3.0.D
Vally, David	Written	3.0.B
Vally, David	Written	3.0.D
Van Dusseldorp, Cinda	Written	3.0.D
Van Leuven, Judith	Written	3.0.D
van Noppen, Eleanor	Written	3.0.E
Van Unen, Laurie	Written	3.0.A
Vanderhoff, Bruce	Written	3.0.C
Vasquezc, Jennifer	Written	3.0.B
Veenendaal, Katharina	Written	3.0.B

Name	Submittal method	FL code
Veenendaal, Katharina	Written	3.0.D
Vela, Mary	Written	3.0.D
Venable, Brian	Written	3.0.E
Viebrock, Camille	Written	3.0.B
Villeneuve, Phyllis	Written	3.0.E
Violette, Telina	Written	3.0.E
Vossler, Susan	Written	3.0.E
Waddel, Russell	Written	3.0.B
Wagner, Judith	Written	3.0.A
Walden, Gerald	Written	3.0.A
Walden, Gerald	Written	3.0.C
Walker, Bradley	Written	3.0.A
Walling, Robert	Written	3.0.E
Warehime, JoAnne	Written	3.0.B
Watson, Colin	Written	3.0.E
Wattenburger, Renita	Written	3.0.B
Wear, Jeffrey	Written	3.0.D
Weatherwax, Thomas	Written	3.0.D
Webb, Doug	Written	3.0.B
Weber, Lisa	Written	3.0.E
Wehrle, Peg	Written	3.0.E

Name	Submittal method	FL code
Weinstein, Elyette	Written	3.0.E
Weir, Joyce	Written	3.0.E
Weis, Marie	Written	3.0.E
Welch, Robert	Written	3.0.B
Wells, Deborah	Written	3.0.B
Wells, Deborah	Written	3.0.D
Wheeler, Wilna	Written	3.0.A
White, Nancy	Written	3.0.E
Wichar, Den Mark	Written	3.0.E
Widener, Carol	Written	3.0.A
Widener, Shirley	Written	3.0.B
Widener, Shirley	Written	3.0.D
Widner, Richard	Written	3.0.C
Wiederhold, Deanna	Written	3.0.D
Wight, Dan	Written	3.0.C
Wilkins, Diane	Written	3.0.D
Willem, Cheryl	Written	3.0.A
Wiley, E	Written	3.0.E
Willis, Stanley	Written	3.0.C
Wilson, Doris	Written	3.0.E
Wilson, Juanita	Written	3.0.C
Wilson, Kaylynn	Written	3.0.C

Name	Submittal method	FL code
Wimsett, Kateri	Written	3.0.E
Wines, Karen	Written	3.0.D
Wingard, Lucinda and Donald	Written	3.0.E
Witte, Rita	Written	3.0.A
Wood, Cindy	Written	3.0.C
Wood, Cindy	Written	3.0.D
Woodruff, Bob	Written	3.0.C
Wooster, Richard	Written	3.0.D
Wooten, Andre	Written	3.0.D
Worley, Don	Written	3.0.E
Worster, John	Written	3.0.B
Yencich, Joseph A	Written	3.0.E
Yokoyama, Amy	Written	3.0.D
Yonev, Yogit	Written	3.0.E
Young, Marlin	Written	3.0.D
Yvonnewylie, Janet	Written	3.0.A
Zador, Stephani	Written	3.0.E
Zakariassen, John	Written	3.0.A
Zelano, Bethanne	Written	3.0.E
Zerr, Laura	Written	3.0.E
Zetterberg, Karl	Written	3.0.A
Zetterberg, Karl	Written	3.0.D
Zetterberg, Robert	Written	3.0.D
Zickler, Donna	Written	3.0.B
Zielasko, James	Written	3.0.A
Zimmerman, Craig	Written	3.0.E
Zinter, Jim	Written	3.0.B
Zinter, Jim	Written	3.0.D
_____, Florence	Written	3.0.E
_____, Mike and Elledge	Written	3.0.E

Organization of Comment Topics

After carefully considering all comments received, we summarized comments for readability and conciseness, and included a response. You can view the original comments in **Appendix B: Written Comments** and in Ecology's online comment tool.[41] We also stored the comments in the permanent rulemaking record and will share the record on request.

Many comments reference multiple topics so we grouped similar comments, organized them by topic, and included a comment code.

Comment topics

1.0 Rulemaking process
- 1.1 General support
- 1.2 General opposition
- 1.3 Safer Products for Washington cycle 1
- 1.4 Preliminary Regulatory Analyses
- 1.5 SEPA

2.0 Rule language
- 2.1 Rule applicability
- 2.2 Requesting an exemption
- 2.3 Definitions
- 2.4 Federal preemption
- 2.5 Equity and environmental justice
- 2.6 Previously owned products
- 2.7 Reporting
- 2.8 Confidential business information
- 2.9 Chemical classes
- 2.10 PFAS in priority consumer products
- 2.11 Ortho-phthalates in priority consumer products
- 2.12 Flame retardants in priority consumer products
- 2.13 Alkylphenol ethoxylates in priority consumer products
- 2.14 Bisphenols in priority consumer products

3.0 Form letters

4.0 Miscellaneous

[41] https://hwtr.ecology.commentinput.com/comment/extra?id=EPWsm

Summarized Comments and Ecology Responses

1.0 Rulemaking process

The following comments relate to the rulemaking process.

1.1 General support

The following comments expressed general support of the proposed rule and Safer Products for Washington effort. Because the comments were similar, we wrote one response for comments 1.1.A – 1.1.D.

Comment 1.1.A

Commenters

- Golden, Lisa
- Himes, Laura
- Hobby, Clare (TCO Certified)
- Hoenstine, Traci Lynn
- Lovie, John
- McDade, Kirsten (RE Sources)
- Peele, Cheri (Toxic-Free Future and Clean Production Action)
- Preciado-Partida, Kathy (MD Retired Obstetrician-Gynecologist)
- Rossi, Mark (Clean Production Action)
- Tan, Shirlee
- Watters, Heidi

Summary of comments

Commenters support the proposed rule.

Comment 1.1.B

Commenters

- Birnbaum, Linda (Scholar in Residence at Duke University)
- Carbone, Lauralee
- Carignan, Courtney
- Evans, Ashley (King County Hazardous Waste Management Program)
- Gurol, Kamuron (King County Wastewater Treatment Division)
- Hancock, John

- Hill, Mary
- Intveld, Rose
- Jahl, Lydia (Green Science Policy Institute)
- Johnson, AJ (Washington State Council of Fire Fighters)
- Peele, Cheri (Toxic-Free Future)
- Preciado-Partida, Kathy (MD Retired Obstetrician-Gynecologist)
- Strehler, Brooke
- Tan, Shirlee (Public Health – Seattle & King County)
- Tatro, B.
- Thorson, Kate
- Town, Mattie
- Valeriano, Laurie (Toxic-Free Future)
- Valeriano, Laurie on behalf of Brandi Hyatt from Yakima County

Summary of comments

Commenters support the proposed rule and say the rule is needed to protect public health and the environment.

Comment 1.1.C

Commenters

- Peele, Cheri (Toxic-Free Future)
- Peele, Cheri (Toxic-Free Future and Clean Production Action)

Summary of comments

Commenters support the proposed rule and say the rule is needed because toxic chemicals disproportionately expose vulnerable populations such as indigenous populations, low-income communities, and communities of color.

Comment 1.1.D

Commenters

- Keeney, David
- McDade, Kirsten (RE Sources)
- Patrick, Levi

Summary of comments

Commenters support the proposed rule and say Ecology should do more.

Response for comments 1.1.A – 1.1.D

Thank you for your comment. With the adoption of this rule, Ecology is complying with the Pollution Prevention for Healthy People and Puget Sound Act (Chapter 70A.350 RCW[42]) to make consumer products safer for our families and environment. It marks a major milestone in how we prevent pollution from chemicals in everyday products and is one of the strongest laws on toxic chemicals in the nation.

The adopted rule aims to reduce toxic chemicals in consumer products, which could decrease toxic chemicals:

- Emitted to the air when waste is burned or from landfill fumes.
- Discharged to waters from wastewater treatment plants or as leachate from landfills.
- Released from the production, storage, or use of consumer products.

Many consumer products people use at home, work, or school contain toxic chemicals that can harm our health and contaminate the environment. Steady releases of chemicals from these products make up one of the largest sources of toxics entering Washington's environment. Toxic chemicals in consumer products can expose people:

- Directly from items such as personal care products, furniture, and household products.
- Indirectly from their environment—air you breathe, water you drink, and food you eat.

If we reduce the use of toxic chemicals in consumer products by using safer alternatives, we can reduce exposure across the product lifecycle—from manufacturing to recycling, reuse, or disposal. This results in less direct exposure, indirect exposure, and harm to wildlife and the environment.

For most chemicals used in consumer products, there is inadequate hazard or exposure information to understand the risks they pose to people and the environment. Yet epidemiological and environmental monitoring studies often find impacts from chemicals used in consumer products.

One way to prevent risks from chemicals in consumer products is to avoid the use of hazardous chemicals. This approach reduces risks across the lifecycle of the product by reducing exposures to toxic chemicals during the manufacturing, use, and disposal or reuse phases.

We adopted Chapter 173-337 WAC as directed by Chapter 70A.350 RCW to make consumer products safer for our families and environment. The law also directs Ecology to continue implementing this repeating four-phase cycle of identifying priority chemicals used in priority consumer products, determining appropriate regulatory actions, and developing requirements to implement the regulatory actions.

We will continue involving overburdened communities, sensitive populations, and the community organizations supporting them in the implementation of the Safer Products

[42] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350&full=true

for Washington program. Examples of how we intend to involve members of those communities and broader audiences include:

- Considering disproportionate impacts on overburdened communities and sensitive populations based on the consumer products they use. We identify the products they use through peer-reviewed literature, engagement with community groups, and public input.
- Enlisting multiple communication channels social media outlets, blogs, press releases, physical mailings, individual emails, and the Safer Products for Washington email list.
- Developing and sharing short videos in English and Spanish about safer products and how they impact consumers.
- Hosting listening sessions and community outreach events.

1.2 General opposition

The following comments expressed general opposition to the proposed rule and Safer Products for Washington effort.

Comment 1.2.A

Commenters

- Keane, John (Association of Home Appliance Manufacturers)

Summary of comments

Comment suggests Ecology should clarify the intent and scope before proceeding with the rulemaking.

Response

Thank you for your comment. During the rulemaking to develop Chapter 173-337 WAC, Ecology communicated the intent and scope of the rulemaking by:

- Releasing a draft Regulatory Determinations Report[43] in November 2021 for informal public comment.
- Hosting two webinars in January 2022.
- Submitting the Regulatory Determinations Report to the Legislature in June 2022.
- Hosting two webinars in June 2022.
- Releasing a preliminary draft rule in August 2022 for informal public comment.
- Hosting two webinars in August 2022.
- Releasing the formal draft rule in December 2022 for formal public comment.

[43] https://apps.ecology.wa.gov/publications/documents/2104047.pdf

- Hosting two public hearings in January 2023.
- Sharing updates with stakeholders through the Safer Products email list and by maintaining three Ecology webpages.

Before starting the rulemaking, Ecology and the Washington State Department of Health:

- Identified priority consumer products and draft regulatory determinations.
- Created a stakeholder advisory process to seek expertise and feedback on the proposed chemical-product combinations and regulatory determinations.

Additional examples of stakeholder involvement opportunities and outreach methods include:

- Websites (Safer Products for Washington program webpage,[44] Safer Products for Washington stakeholder webpage[45]).
- Webinars (16 webinars from 2019 to 2021). We documented feedback and presented to webinar attendees in real-time.
- Announcements via the Safer Products for Washington listserv.
- Questions and answers, presentation slides, and attendee lists provided for each webinar; visit the Safer Products for Washington stakeholder webpage.[46]
- Focus sheets and public outreach materials, including blog posts, social media content, infographics, and videos.
- Engagement workshops with community-based organizations and the public.
- Informal comment period for the Draft Priority Consumer Products Report (January 2020).[47] Ecology provided an informal comment period for the Draft Regulatory Determinations Report (November 2021).[48]

Comment 1.2.B

Commenters

- Palin, Catherine (Alliance for Automotive Innovation)

Summary of comments

Comment suggests Ecology not proceed with the proposed rule until they hear from the Washington State Legislature.

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[44] https://ecology.wa.gov/Waste-Toxics/Reducing-toxic-chemicals/Washington-s-toxics-in-products-laws/Safer-Products-for-Washington

[45] https://www.ezview.wa.gov/site/alias__1962/37555/safer_products_for_washington.aspx

[46] https://www.ezview.wa.gov/site/alias__1962/37555/safer_products_for_washington.aspx

[47] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/Draft_Report_Priority_Consumer_Products.pdf

[48] https://apps.ecology.wa.gov/publications/documents/2104047.pdf

Response

Thank you for your comment. Because of the statute deadline to adopt a rule by June 1, 2023, we proceeded with the rulemaking even though the regulatory actions did not take effect until after the 2023 legislative session concluded on April 23, 2023, in accordance with RCW 70A.350.050(1).[49] The Legislature did not add to, limit, or otherwise amend the regulatory determinations, so they became effective on April 23, 2023.

1.3 Safer Products for Washington cycle 1

The following comments relate to the Safer Products for Washington cycle 1 effort.

Comment 1.3.A.1

Commenters

- Gann, Ben (American Chemistry Council [ACC] and North American Flame Retardant Alliance [NAFRA])
- Mustico, Daniel (Outdoor Power Equipment Institute)
- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests that Ecology should not regulate classes of chemicals.

Response

Thank you for your comment. The Washington State Legislature identified the priority chemicals for the first cycle of the Safer Products for Washington program and intentionally gave Ecology the discretion to regulate chemicals on a class basis. Chemicals within the class often share hazards or mechanisms of action. They are more likely to have similar hazards than those chemicals outside the class. Chemicals within a class of known hazardous chemicals are more likely to be hazardous and therefore require more scrutiny.

It can also prevent regrettable substitutions. Most of the chemicals within the classes have a history of regrettable substitutions. That means chemicals of concern within the class were replaced by other chemicals within the class that turned out to be as problematic. Examples include replacing bisphenol A with bisphenol S. Both chemicals are endocrine disruptors. By acting on the entire class, we reduce the potential for regrettable substitutions.

Regulating classes of chemicals instead of individual chemicals helps us avoid treating chemicals with limited data as safe. Instead, we assume they are potentially hazardous, unless we have sufficient data to demonstrate they are truly safer. If there is a chemical within the class that has sufficient data to demonstrate that it truly is less hazardous than the class, we exempted it. An example of this is the exemption for

[49] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.050

Tetramethylbisphenol F (TMBPF). We took this approach because we didn't want to stifle innovation toward safer chemistry.

We recognize chemical classes show toxicological diversity. That's why we developed a process for separating a particular chemical from the broader class when we find evidence it is safer than others in the class. For more information, see Appendix C: Criteria for Safer in the Regulatory Determinations Report.[50]

Comment 1.3.A.2

Commenters

- Carignan, Courtney
- Peele, Cheri (Toxic-Free Future)
- Peele, Cheri (Toxic-Free Future and Clean Production Action)

Summary of comments

Comment suggests that Ecology should regulate classes of chemicals.

Response

Thank you for your comment. For an explanation of why we regulated classes of chemicals, see the response to Comment 1.3.A.1.

Comment 1.3.A.3

Commenters

- Swearingen, Shawn (Alliance for Telomer Chemistry Stewardship)

Summary of comments

Comment suggests that Ecology should not regulate all PFAS as one class.

Response

Thank you for your comment. We approach PFAS as a class because RCW 70A.350.010[51] identifies PFAS collectively as a priority chemical.

The statute's directive is reasonable and well supported for several reasons:

- All PFAS are persistent or break down to persistent PFAS.
- The most well-characterized PFAS are associated with human and environmental hazards.
- While some PFAS have been phased out by U.S. manufacturers, they have been replaced with other PFAS.
- Manufacturing PFAS compounds generates PFAS impurities or wastes that are associated with human and environmental hazards.

[50] https://apps.ecology.wa.gov/publications/summarypages/2204018.html
[51] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.010

PFAS are a large class of chemicals defined by the presence of at least one carbon-fluorine bond. These bonds are hard to break, causing PFAS to either be extremely persistent or to break down into other PFAS that are extremely persistent. Persistent chemicals are problematic because they do not break down in the environment. That means that as releases continue, exposures increase. Persistent chemicals are difficult to clean up, particularly if we learn about hazards after widespread contamination has occurred.

Many PFAS currently used were brought to market to replace other PFAS manufacturers phased out due to toxicity concerns. Regulating PFAS as a class avoids replacing current PFAS with other, similarly toxic PFAS.

Comment 1.3.A.4

Commenters

- Harmon, Patrick (BASF Corporation)

Summary of comments

Comment suggests that Ecology should not regulate all ortho-phthalates as one class.

Response

Thank you for your comment. We approach ortho-phthalates as a class because RCW 70A.350.010[52] defines ortho-phthalates collectively as a priority chemical. In addition, the statute's directive is reasonable and well supported for several reasons:

- People are exposed to mixtures of ortho-phthalates that can have cumulative impacts on health and development.
- Many ortho-phthalates impact sensitive biological systems during critical windows of susceptibility.
- Previous actions reducing the use of some ortho-phthalates led to increased exposure from other ortho-phthalates.

Nearly everyone is exposed to ortho-phthalates.

Comment 1.3.A.5

Commenters

- Fox, Patrick (The International Bromine Council)
- Gann, Ben (American Chemistry Council)
- Gann, Ben (American Chemistry Council [ACC] and North American Flame Retardant Alliance [NAFRA])
- Harms, Luke (Whirlpool Corporation)
- Hirschler, Marcelo

[52] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.010

- Keane, John (Association of Home Appliance Manufacturers)
- Miller, Bob (Albemarle Corp.)
- Minggang, Zhao (People's Republic of China)
- Osimitz, Thomas
- Shestek, Tim (American Chemistry Council)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)
- Zhou, Zhengmao (China Association of Flame Retarded Materials)

Summary of comments

Comment suggests that Ecology should not regulate all organohalogen flame retardants as one class.

Response

Thank you for your comment. We approach organohalogen flame retardants (OFRs) as a class because RCW 70A.350.010[53] defines OFRs collectively as a priority chemical. In addition, the statute's directive is reasonable and well supported for several reasons:

- OFRs are persistent in the environment.
- Studies associate many organohalogen flame retardants with adequate toxicology information with adverse health effects, including carcinogenicity, mutagenicity, reproductive and developmental toxicity, and endocrine activity.
- Discontinued use of some OFRs led to increased use of other OFRs—growing the potential for exposure to both currently used OFRs and cumulative exposure to current and persistent legacy OFRs.

Regulating the use of individual OFRs in consumer products on a single chemical basis, instead of using a class-based approach, would increase the likelihood of regrettable substitutions or continued use of hazardous chemicals. This imparts unacceptable potentially adverse effects on the environment and human health for future generations. It is necessary to consider OFRs together as a chemical class for several reasons:

- The persistent nature of OFRs.
- The association between exposure to many OFRs and adverse impacts on human health and the environment.
- The historical context of regrettable substitution for this class of chemicals that has led to the potential for ongoing and cumulative exposures.

Comment 1.3.A.6

Commenters

- Jahl, Lydia (Green Science Policy Institute)

[53] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.010

- Johnson, AJ (Washington State Council of Fire Fighters)
- Rossi, Mark (Clean Production Action)
- Valeriano, Laurie (Toxic-Free Future)

Summary of comments

Comment suggests that Ecology should regulate all organohalogen flame retardants as one class.

Response

Thank you for your comment. For an explanation of why we regulated all organohalogen flame retardants as one class, see the response to Comment 1.3.A.5.

Comment 1.3.B.1

Commenters

- Osimitz, Thomas
- Prero, Judah (Chemical Users Coalition)
- Swick, Derek (Can Manufacturers Institute)

Summary of comments

Comment suggests that Ecology should not use a hazard-based assessment process and should only make determinations based on actual risk.

Response

Thank you for your comment. Governments often restrict toxic chemicals in consumer products only after a process called risk assessment demonstrates significant harms are occurring. Risk is a combination of how toxic chemicals are and how much people are exposed to them.

Ecology and Department of Health widely use risk assessments for things like setting drinking water limits and clean-up values—but they don't prevent the use of toxic chemicals. Risk assessments need information about how people are exposed to chemicals and how they might be toxic to us or sensitive species. Often, scientists lack information about the chemicals in consumer products because:

- We don't have full hazard assessments on all chemicals in commerce.
- People are exposed to chemicals in ways we don't know.

This can lead to an incomplete picture. If you assess a risk based on only part of the exposure, it's easy to underestimate the risk. When it comes to toxic chemicals in consumer products, this could mean that you often don't see risk from a single consumer product. But people use many consumer products, not just one—the chemicals in products society collectively uses can eventually reach our environment.

Our program uses a different approach to regulate toxics in consumer products—focused on preventing pollution. We took a hazard-based approach to identify safer alternatives, not a risk-based approach, because the law defines safer as "less

hazardous," not "less risky" (RCW 70A.350.010[54]). Including a risk assessment or exposure assessment would not meet the law's definition of safer (less hazardous, not less risky).

A risk assessment approach answers, “What is the highest level of exposure society can accept?” Our hazard-based approach instead asks, “Where are the opportunities to reduce exposure to toxic chemicals by using safer alternatives?” The best way to reduce risk is to avoid the use of hazardous chemicals in the first place, so this approach allows us to reduce the uses of a toxic chemical before it harms us or the environment. This improves human and wildlife health and reduces environmental cleanup costs.

Using a risk-based approach instead of a hazard-based approach would diverge from the approach set out in the law and would be less protective of people and the environment.

Comment 1.3.B.2

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Harmon, Patrick (BASF Corporation)
- Shestek, Tim (American Chemistry Council)

Summary of comments

Comment suggests that Ecology did not consider the best available science when assessing risk.

Response

Thank you for your comment. We used the best available science when developing and applying our approach. When building our methods for identifying safer, feasible, and available alternatives, we relied on existing methods used by other authoritative bodies. We established transparent criteria with stakeholder feedback and based on existing methods including EPA’s Safer Choice and Design for Environment (DfE) programs, and the GreenScreen® for Safer Chemicals Hazard Assessment Guidance (GreenScreen®).

All three frameworks rely on similar data sources—including the Globally Harmonized System (GHS)—for classifying information using a weight-of-evidence approach. We chose to build on these methods for many reasons, but mostly because:

- Each framework developed transparent criteria using a stakeholder process.
- Guidance documents for alternatives assessments recommend the frameworks.

[54] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.010

- Published alternatives assessments conducted by (or on behalf of) Washington state or the federal government use the frameworks.

We conducted a rigorous stakeholder advisory process and used stakeholder feedback to aid in decision-making. We provided our detailed technical methods (Working Draft Criteria for Safer[55] and Working Draft Criteria for Feasible and Available[56]) to the public in February 2021.

When applying these methods to identify safer, feasible, and available alternatives, we relied on authoritative reports from other government agencies, peer reviewed literature, third party reviewed or fully transparent hazard assessments, and other information we deemed authoritative. We used similar methods to identifying chemicals of high concern to children when implementing Chapter 70A.430 RCW[57] and developing Chapter 173-334 WAC.[58]

Data on the performance of alternatives was often not peer reviewed. In this case, we relied on data from manufacturers describing the function and performance of their product. The Interstate Chemicals Clearinghouse Alternatives Assessment Guide[59] supports using this approach.

Comment 1.3.B.3

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Hirschler, Marcelo
- Jacobs, Leo
- Keane, John (Association of Home Appliance Manufacturers)
- Miller, Bob (Albemarle Corp.)
- Prero, Judah (Chemical Users Coalition)
- Shestek, Tim (American Chemistry Council)

Summary of comments

Comment suggests that Ecology should consider fire safety when assessing risk.

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[55] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/SaferProductsWA_WorkingDraftCriteria_Safer.pdf

[56] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/SaferProductsWA_WorkingDraftCriteria_FeasibleAvailable.pdf

[57] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.430

[58] https://apps.leg.wa.gov/wac/default.aspx?cite=173-334

[59] http://theic2.org/alternatives_assessment_guide#gsc.tab=0

Response

Thank you for your comment. Fire safety is extremely important. Our goal was to identify alternatives that meet the same fire safety standards as priority chemicals. We do not view meeting fire safety and reducing chemical hazards as trade-offs—people can have both.

We focused on finding alternatives that could replace organohalogen flame retardants and still meet relevant fire safety standards. If an alternative compromises fire safety, we did not identify that alternative as feasible and available.

By using fire safety standards, we can leverage the expertise of organizations that set the fire safety standards with which products sold in the U.S. must comply. Fire safety standards include a set of prescribed flammability tests that products and components must meet. Using fire safety standards as a consistent metric allows us to evenly compare alternatives and priority chemicals.

We found chemical alternatives that can meet the most stringent fire safety standards and are less hazardous for people and the environment. Most electric and electronic products must meet the standards listed in UL[60] 746C. The UL 746C standard applies to polymeric (plastic) enclosures and refers to the UL 94 flammability ratings in its criteria. The UL 94 rating is specific to the external enclosure and range from HB[60]—which frequently require no chemical flame retardants—to 5VA and 5VB[60]—which require both chemical flame retardants and anti-drip agents.

We identified seven different resins that meet the UL 94 flammability standards, including three that meet the most stringent 5VA and 5VB standards. These resins only use safer chemical flame retardants.

We did not identify any current flammability standards for recreational polyurethane foam products. We discussed these consumer products with fire safety experts and decided to use California Technical Bulletin 117 (TB-117). Because we did not identify current fire safety standards relevant to recreational polyurethane foam products, we used the California TB-117 as a surrogate flammability standard to ensure we did not compromise on fire safety when identifying alternatives.

Because the alternatives meet the most stringent flammability standards, we do not think the restrictions in the new chapter will impact fire safety.

Comment 1.3.B.4

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Miller, Bob (Albemarle Corp.)
- Swearingen, Shawn (Alliance for Telomer Chemistry Stewardship)

[60] https://ulstandards.ul.com/

Summary of comments

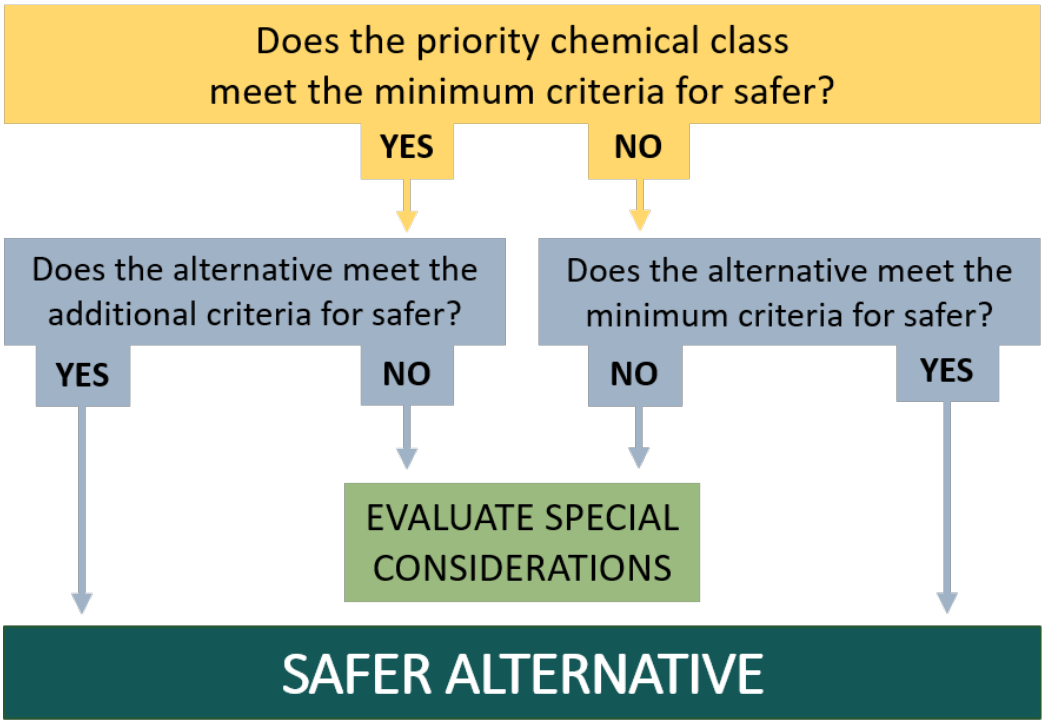
Comment suggests that Ecology inconsistently applied its hazard criteria to assess the safety or alternatives compared to the priority chemicals.

Response

Thank you for your comment. We identified safer alternative chemicals to the priority chemical class based on whether they met specific hazard criteria. In this process, we evaluated the priority chemical class to determine whether it meets our minimum criteria for safer. This tells us whether the alternative chemical needs to meet the minimum or additional criteria for safer.

If we identify an alternative chemical that meets the appropriate criteria for safer, it is a safer alternative. In some cases, alternative and priority chemical classes may have similar hazard levels, meaning we included additional considerations in our evaluation. Figure 1 shows this process.

Figure 1: Process to determine whether alternatives are safer than priority chemicals.



This process can be broken down as follows:

- Does the priority chemical class meet the minimum criteria for safer?
    - If no, then we ask, does the **alternative chemical meet or exceed the minimum criteria** for safer?
        - If yes, then it is safer.
        - If no, then we evaluate special considerations.

- If yes, then we ask, does the **alternative chemical meet the additional criteria** for safer?
  - If yes, then it is a safer alternative.
  - If no, then we evaluate special considerations.

This approach is based on the concept that "safer" is a spectrum and a continuous improvement process—see Figure 2. Even when an alternative is safer than the priority chemical, there is still room for improvement.

Figure 2: Spectrum of safer.

Comment 1.3.B.5

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Miller, Bob (Albemarle Corp.)

Summary of comments

Comment suggests that Ecology's use of additional criteria to establish "minimum criteria for safer" goes beyond GreenScreen's methods and could undermine the acceptance of GreenScreen.

Response

Thank you for your comment. We used many existing chemical hazard assessments to establish our criteria for safer, including GreenScreen. GreenScreen is not the only chemical hazard assessment method available; there are other options that also use the globally harmonized system for the classification and labeling of chemicals.

"Safer" is a spectrum and a continuous improvement process—see Figure 2, above. And because safer is a spectrum, we established minimum criteria and additional criteria for safer. A chemical may be safer than a highly toxic chemical, but that does not mean it is an optimal chemical.

Even when an alternative is safer than the priority chemical, there is still room for improvement. GreenScreen recognizes this approach and developed four different benchmark scores. GreenScreen's benchmark 2 criteria aligns with our minimum criteria for safer. We did not use GreenScreen's benchmark 3 criteria for our additional criteria because wanted to incorporate elements of EPA's Safer Choice Master Criteria for Safer Chemical Ingredients[61] as well. To establish our additional criteria for safer, we

[61] https://www.epa.gov/saferchoice/safer-choice-master-criteria-safer-chemical-ingredients

used a hybrid between GreenScreen's benchmark 3 and EPA's Safer Choice Master Criteria for Safer Chemical Ingredients.

When assessing chemicals within a priority chemical class, we applied more stringent criteria than the minimum criteria for safer. We used this approach because we wanted to apply extra scrutiny to a chemical in a class of chemicals that has known human and environmental hazards.

Chemicals in the class have common molecular structures that can lead to shared hazards, such as environmental persistence and endocrine disruption, reproductive toxicity, and carcinogenicity. When determining whether a chemical within class is safer, we need data to demonstrate it does not share the same hazards.

When assessing the hazards of alternatives, we based our conclusions on individual chemicals and not the chemical class. Class-based approaches rely on the assumption that chemicals with limited toxicology data that have similar molecular structures as known toxic chemicals are potentially hazardous. We do not use this assumption because lack of data does not indicate safety. For this reason, we assessed organohalogen flame retardants as a chemical class, but we only identified individual organophosphate flame retardants as safer alternatives.

Comment 1.3.B.6

Commenters

- Blackstock, Bill (Resilient Floor Covering Institute)
- Shestek, Tim (American Chemistry Council)

Summary of comments

Comment suggests that Ecology used a grossly overestimated assumption as the basis for a calculation used to identify vinyl flooring as a significant source or use of ortho-phthalates.

Response

Thank you for your comment. In support of our priority consumer product determination, we considered both the volume of ortho-phthalates used in vinyl flooring and the contribution of vinyl flooring as a source of ortho-phthalates in the environment. We also considered the potential for exposure to ortho-phthalates in humans, including in sensitive populations.

After we published the Priority Consumer Products Report (July 2020),[62] manufacturers communicated that ortho-phthalate use in flooring products decreased over the past few years. Using the authority under RCW 70A.350.030,[63] we requested data on current ortho-phthalate use from manufacturers. In data we received from manufacturers to date, the majority no longer use ortho-phthalates and many report using the safer alternative plasticizers identified in this report.

[62] https://apps.ecology.wa.gov/publications/summarypages/2004019.html
[63] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.030

However, we also learned that both DEHP[64] and DINP[65] are still used in a subset of products. While the use of ortho-phthalates in vinyl flooring decreased since our 2020 estimate, vinyl flooring sales appear to be increasing. Vinyl flooring remains a significant source of potential exposure to ortho-phthalates, particularly for people using and purchasing the vinyl flooring products that contain ortho-phthalates.

Comment 1.3.B.7

Commenters

- Harmon, Patrick (BASF Corporation)

Summary of comments

Commenter requests Ecology share full hazard assessments that Ecology used when assessing hazards.

Response

Thank you for your comment. Each hazard assessment table in the Regulatory Determinations Report[66] cites the hazard assessment used for each priority chemical. People can also access the hazard assessments through many external websites, for instance:

- The Interstate Chemicals Clearinghouse website[67] provides many of the complete hazard assessments we used.
- The ToxFMD Screened Chemistry website[68] provides many of the GreenScreen benchmark 1 chemicals discussed in the Regulatory Determinations Report. This website provides most of the hazard assessments for chemicals within the priority chemical classes.

Alternative chemicals sometimes contain confidential business information. In these cases, we discuss the relevant hazards and explain how the chemicals meet our criteria for safer, but we cannot share the entire assessment.

In some situations, we used chemical hazard assessments in databases not available to the public. When we used chemical hazard assessments by Scivera or Chemforward that were not publicly available, we discussed the relevant information from these assessments in the Regulatory Determinations Report. For example, if we discussed a priority chemical that does not meet our criteria for safer, then we:

- Discussed one or two endpoints that disqualify the chemical from meeting our criteria.
- Discussed the underlying data.

[64] https://www.p65warnings.ca.gov/fact-sheets/di2-ethylhexylphthalate-dehp
[65] https://www.p65warnings.ca.gov/fact-sheets/diisononyl-phthalate-dinp
[66] https://apps.ecology.wa.gov/publications/summarypages/2204018.html
[67] http://theic2.org/hazard-assessment#gsc.tab=0
[68] https://toxservices.com/services/toxfmd/

- Included citations.
- Explained why the chemical does not meet our criteria.

This approach allows stakeholders to review the information and provides an opportunity for them to challenge our determination that the chemicals do not meet our criteria. It is also a better use of taxpayer dollars because it allows us to use existing databases and not have to purchase duplicative assessments.

Comment 1.3.C.1

Commenters

- Fox, Patrick (The International Bromine Council)
- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Hirschler, Marcelo
- Jacobs, Leo
- Miller, Bob (Albemarle Corp.)
- Prero, Judah (Chemical Users Coalition)
- Swearingen, Shawn (Alliance for Telomer Chemistry Stewardship)

Summary of comments

Comment suggests that Ecology insufficiently assessed the availability and viability of alternatives and relied on subjective measures like advertising and promotional materials.

Response

Thank you for your comment. Ecology used the criteria in the Interstate Chemicals Clearinghouse Guide for Alternatives Assessment (2017)[69] to identify alternatives as feasible and available. The criteria in the IC2 Guide identifies alternatives as feasible and available if they are currently used for the application of interest. In most cases, the application of interest matched the priority consumer product. In some cases, like flame retardants, we supplemented this analysis by confirming that alternatives can meet relevant flammability standards.

We also relied on marketing and promotional material, and we understand that some stakeholders prefer we use performance testing data. Unfortunately, very little performance testing data is available and sometimes performance testing cannot be practically compared. For example, we received flame retardant data comparing electronic products with organohalogen flame retardants to electronic products with no flame retardants. We could not use this data to compare the performance of priority chemicals and safer alternatives.

[69] http://theic2.org/alternatives_assessment_guide#gsc.tab=0

In some situations, differences in performance at the chemical or material level do not impact performance at the product level. For example, PFAS may provide better stain and oil resistance than alternatives. But if the alternatives provide enough stain and water resistance to meet the product's performance needs, they may still be feasible.

Comment 1.3.C.2

Commenters

- Harms, Luke (Whirlpool Corporation)
- Keane, John (Association of Home Appliance Manufacturers)

Summary of comments

Commenter states they have confirmed through constant work with suppliers all over the world, that there are currently no viable alternatives to organohalogen flame retardants.

Response

Thank you for your comment. In the Regulatory Determinations Report (June 2022),[70] we determined that chemical alternatives to organohalogen flame retardants (OFRs) are feasible and available for use in enclosures of electric and electronic products intended for indoor use.

To establish the feasibility and availability of alternatives, we provided evidence that:

- Safer flame retardants are sold and compatible with plastic and plastic blends used broadly in electric and electronic enclosures.
- Plastic blends containing safer flame retardants are sold as resins for use in enclosures of a broad range of products and can meet relevant flammability requirements.
- Alternative processes can also be used to meet flammability requirements without the use of flame retardants.
- Existing products are already available that use safer alternative flame retardants in plastic enclosures or the identified alternative processes.

We found that to meet flammability requirements for plastic electric and electronic enclosures, use of flame retardants is necessary in some applications. We identified several organophosphate flame retardants (OPFRs) that meet our minimum criteria for safer, and we consider these safer alternatives relative to using organohalogen flame retardants in these products. Several of the OPFRs also meet our more protective additional criteria for safer.

Throughout the development of the new chapter, we worked with stakeholders including industry to develop clear, achievable requirements. We made many changes to requirements in response to feedback from stakeholders and other interested parties including modifying the scope of the priority consumer products, delaying the effective

[70] https://apps.ecology.wa.gov/publications/summarypages/2204018.html

date of restrictions so the regulated community has more time to comply, and adjusting restriction limits to match restrictions by other regulating authorities.

The new chapter does not specify alternatives that manufacturers must use, it only includes restrictions and reporting requirements for specific toxic chemicals (priority chemicals) in specific consumer products (priority consumer products). Those regulated by the new chapter have the option to determine how they comply with the new chapter.

The new chapter also allows a person to request an exemption from requirements in situations such as "it is not currently possible to comply with the restriction and comply with another legally imposed requirement" (WAC 173-373-020(2)(b)). To reduce the burden on regulated entities, the new chapter also grants temporary exemption to a person who satisfies the requirements in WAC 173-373-020(3) and (4).

Comment 1.3.C.3

Commenters

- Zhou, Zhengmao (China Association of Flame Retarded Materials)

Summary of comments

Commenter states forcing manufacturers to use alternatives not well proven will undermine fireproof performance and jeopardize consumers' life and property.

Response

Thank you for your comment. The Washington State Legislature identified organohalogen flame retardants as priority chemicals, directed us to identify priority consumer products that contain priority chemicals, and authorized us to adopt restrictions if we find safer, feasible, and available alternatives.

We determined that there are safer, feasible, and available alternatives to using organohalogen flame retardants. In the Regulatory Determinations Report to the Legislature,[71] we concluded that:

- Safer flame retardants can be used in electric and electronic enclosures (for products intended for indoor use), are marketed in promotional materials for use in electric and electronic enclosures (for products intended for indoor use) and are already used in electric and electronic enclosures (for products intended for indoor use) and are available on the market.
- Recreational polyurethane foam products without flame retardants are marketed for the same uses as recreational polyurethane foam products with flame retardants, currently available on the commercial market, and currently used in gyms.

The alternatives we identified are well proven. In fact, we identified many of these alternative chemicals in a 2009 report to the Legislature, titled Alternatives to Deca-BDE in Televisions and Computers and Residential Upholstered Furniture.[72] Before being

[71] https://apps.ecology.wa.gov/publications/summarypages/2204018.html
[72] https://apps.ecology.wa.gov/publications/SummaryPages/0907041.html

sold to consumers, products that must meet flammability standards undergo rigorous testing. Thousands of consumer products currently available on the market use safer alternatives and these products have undergone rigorous testing.

The new chapter does not specify alternatives that manufacturers must use, it only includes restrictions and reporting requirements for specific toxic chemicals (priority chemicals) in specific consumer products (priority consumer products). Those regulated by the new chapter have the option to determine how they comply with the new chapter.

Comment 1.3.C.4

Commenters

- Hobby, Clare (TCO Certified)
- Jahl, Lydia (Green Science Policy Institute)
- Johnson, AJ (Washington State Council of Fire Fighters)
- Miller, Gillian (Ecology Center)
- Miller, Pamela (Alaska Community Action on Toxics)

Summary of comments

Commenter states that independent bodies such as TCO Certified identified safer, available alternatives that meet flammability standards. Commenter also states, “the industry is already in the routine of using these safer alternatives at scale.”

Response

Thank you for your comment. We agree and appreciate the many stakeholders like TCO Certified who participated in Cycle 1 of the Safer Products for Washington program. For more information about the safer, feasible, and available alternatives we identified and for more information about Cycle 1, review the Regulatory Determinations Report[73] and the Priority Consumer Products Report.[74]

Comment 1.3.C.5

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Keane, John (Association of Home Appliance Manufacturers)
- Miller, Bob (Albemarle Corp.)
- Shestek, Tim (American Chemistry Council)

[73] https://apps.ecology.wa.gov/publications/summarypages/2204018.html
[74] https://apps.ecology.wa.gov/publications/summarypages/2004019.html

Summary of comments

Comment suggests that implementing the proposed chapter will force manufacturers to use alternative materials that are restricted by other regulating authorities.

Response

Thank you for your comment. Throughout the development of the new chapter, we worked with stakeholders including industry to develop clear, achievable requirements. We made many changes to requirements in response to feedback from stakeholders and other interested parties including modifying the scope of the priority consumer products, delaying the effective date of restrictions so the regulated community has more time to comply, and adjusting restriction limits to match restrictions by other regulating authorities.

The new chapter does not specify alternatives that manufacturers must use, it only includes restrictions and reporting requirements for specific toxic chemicals (priority chemicals) in specific consumer products (priority consumer products). Those regulated by the new chapter have the option to determine how they comply with the new chapter.

The new chapter also allows a person to request an exemption from requirements in situations such as "it is not currently possible to comply with the restriction and comply with another legally imposed requirement" (WAC 173-373-020(2)(b)).

Comment 1.3.D.1

Commenters

- Peele, Cheri (Toxic-Free Future and Clean Production Action)

Summary of comments

Commenter states they support the proposed restrictions and that Ecology identified safer, feasible, and available alternatives.

Response

Thank you for your comment. With the adoption of this rule, we're complying with the Pollution Prevention for Healthy People and Puget Sound Act (Chapter 70A.350 RCW[75]) to make consumer products safer for people and the environment. It marks a major milestone in how we prevent pollution from chemicals in everyday products and it's one of the strongest laws on toxic chemicals in the nation.

The adopted rule aims to reduce toxic chemicals in consumer products which could decrease toxic chemicals:

- Emitted to the air when waste is burned or from landfill fumes.
- Discharged to waters from wastewater treatment plants or as leachate from landfills.
- Released from the production, storage, or use of consumer products.

[75] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350&full=true

Many consumer products people use at home, work, or school contain toxic chemicals that can harm our health and contaminate the environment. Steady releases of chemicals from these products make up one of the largest sources of toxics entering Washington's environment. Toxic chemicals in consumer products can expose people:

- Directly from items such as personal care products, furniture, and household products.
- Indirectly from their environment—air you breathe, water you drink, and food you eat.

If we reduce the use of toxic chemicals in consumer products by using safer alternatives, we can reduce exposure across the product lifecycle—from manufacturing to recycling, reuse, or disposal. This results in less direct exposure, indirect exposure, and harm to wildlife and the environment.

For most chemicals used in consumer products, there is inadequate hazard or exposure information to understand the risks they pose to people and the environment. Yet epidemiological and environmental monitoring studies often find impacts from chemicals used in consumer products.

One way to prevent risks from chemicals in consumer products is to avoid the use of hazardous chemicals. This approach reduces risks across the lifecycle of the product by reducing exposures to toxic chemicals during the manufacturing, use, and disposal or reuse phases.

Comment 1.3.D.2

Commenters

- Jahl, Lydia (Green Science Policy Institute)

Summary of comments

Comment suggests Ecology change the proposed notification requirement to a restriction for PFAS in outdoor furniture because safer alternatives exist.

Response

Thank you for your comment. In the Regulatory Determinations Report[76] we submitted to the Legislature in June 2022, we determined a reporting requirement for PFAS used in outdoor leather and textile furniture and furnishings. We made this determination because we did not identify an alternative textile or leather material used in outdoor furnishings that does not require a surface stain treatment.

At the time of the report, we did not identify feasible alternative materials and processes for outdoor furnishings, because we did not have the data. However, we implement the Safer Products for Washington program on a repeating cycle. And in a future cycle, if we identify safer alternatives that are feasible and available, we can propose a restriction for PFAS used in outdoor leather and textile furniture and furnishings.

[76] https://apps.ecology.wa.gov/publications/summarypages/2204018.html

The adopted rule requires manufacturers submit a notification to Ecology if outdoor leather and textile furniture and furnishings contains intentionally added PFAS. Manufacturers must start tracking this information on January 1, 2024, and submit their notification to Ecology by January 31, 2025. We will consider the information manufacturers report and determine if a restriction is appropriate in future rulemakings.

Comment 1.3.D.3

Commenters

- Jahl, Lydia (Green Science Policy Institute)

Summary of comments

Commenter states they support the proposed restrictions of PFAS because it will reduce consumer exposure to the harmful chemical class.

Response

Thank you for your comment. We agree that restricting the use of PFAS in the priority consumer products would reduce consumer exposure.

Many PFAS bioaccumulate and are associated with human health and environmental toxicity. PFOA and PFOS are the most well-characterized PFAS and are associated with systemic and developmental toxicity and persistence. Persistent chemicals are difficult to clean up, particularly if we learn about hazards after widespread contamination has occurred. Researchers estimated that about 200 million people have PFAS-contaminated drinking water (Andrews, 2020). Drinking water contamination is harmful to health and expensive to mitigate.

Chemicals in the PFAS class have similar toxic properties of concern, such as reproductive and developmental toxicity and systemic toxicity (including immunotoxicity, neurotoxicity, and thyroid).

Many PFAS currently used were brought to market to replace other PFAS manufacturers phased out due to toxicity concerns. Regulating PFAS as a class avoids replacing current PFAS with other, similarly toxic PFAS.

Restricting the use of PFAS in carpets and rugs, leather and textile furniture and furnishings, and aftermarket stain- and water-resistance treatments would reduce people's exposure to PFAS and the release of PFAS into the environment.

Comment 1.3.D.4

Commenters

- Blackstock, Bill (Resilient Floor Covering Institute)
- Conneely, Eileen (American Chemistry Council)

Summary of comments

Commenter states it is unnecessary to restrict ortho-phthalates in vinyl flooring because Ecology did not meet the criteria in RCW 70A.350.040, has no basis for proposing to restrict ortho-phthalates in vinyl flooring, and industry has shifted away from using ortho-phthalates in vinyl flooring.

Response

Thank you for your comment. RCW 70A.350.040[77] states that Ecology may restrict a priority chemical in a priority consumer product when it determines:

- Safer alternatives are feasible and available; and
- The restriction will reduce a significant source or use of a priority chemical; or
- The restriction is necessary to protect the health of sensitive populations or sensitive species.

The Washington State Legislature identified ortho-phthalates as priority chemicals, directed us to identify priority consumer products that contain priority chemicals, and authorized us to adopt restrictions if we find safer, feasible, and available alternatives.

In the Priority Consumer Products Report to the Legislature,[78] we identified vinyl flooring as a priority consumer product and determined it is a significant source or use of ortho-phthalates. In that report, we cited a 2016 study that estimated that vinyl flooring contains phthalates at concentrations between 9 percent and 32 percent by weight. According to the Resilient Flooring Institute (RFCI), most vinyl flooring products do not use ortho-phthalates. We confirmed this with a data order that was sent to all major vinyl flooring manufacturers. From this data, we learned that while most manufacturers had moved away from ortho-phthalates, some were still using DEHP[79] or DINP[80] in their products. This is still a significant source of exposure for people who use vinyl flooring that contains ortho-phthalates. This can lead to disproportionate exposures that particularly impact sensitive populations, such as infants and children who spend more time on or near the floor.

In the Regulatory Determinations Report to the Legislature,[81] we concluded that safer chemical alternatives are:

- Marketed as plasticizers for use in vinyl flooring.
- Used as plasticizers in vinyl flooring.
- Used in vinyl flooring products that are available on the market.

Because vinyl flooring is still a significant source of exposure to ortho-phthalates and because we identified safer chemical alternatives that can be used as plasticizers in vinyl flooring, we conclude that restricting the use of ortho-phthalates in vinyl flooring would reduce a significant source of potential exposure for people and the environment.

[77] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.040
[78] https://apps.ecology.wa.gov/publications/summarypages/2004019.html
[79] https://www.p65warnings.ca.gov/fact-sheets/di2-ethylhexylphthalate-dehp
[80] https://www.p65warnings.ca.gov/fact-sheets/diisononyl-phthalate-dinp
[81] https://apps.ecology.wa.gov/publications/summarypages/2204018.html

Comment 1.3.D.5

Commenters

- Shestek, Tim (American Chemistry Council)

Summary of comments

Commenter questions Ecology's basis for the proposed restrictions on organohalogen flame retardants and states that Ecology's determinations were fatally flawed.

Response

Thank you for your comment. RCW 70A.350.040[82] states that Ecology may restrict a priority chemical in a priority consumer product when it determines:

- Safer alternatives are feasible and available; and
- The restriction will reduce a significant source or use of a priority chemical; or
- The restriction is necessary to protect the health of sensitive populations or sensitive species.

The Washington State Legislature identified organohalogen flame retardants as priority chemicals, directed us to identify priority consumer products that contain priority chemicals, and authorized us to adopt restrictions if we find safer, feasible, and available alternatives.

We determined that there are safer, feasible, and available alternatives to using organohalogen flame retardants. In the Regulatory Determinations Report to the Legislature,[83] we concluded that:

- Safer flame retardants can be used in electric and electronic enclosures (for products intended for indoor use), are marketed in promotional materials for use in electric and electronic enclosures (for products intended for indoor use) and are already used in electric and electronic enclosures (for products intended for indoor use) and are available on the market.
- Recreational polyurethane foam products without flame retardants are marketed for the same uses as recreational polyurethane foam products with flame retardants, currently available on the commercial market, and currently used in gyms.

In the Priority Consumer Products Report,[84] we explained that organohalogen flame retardants are persistent in the environment and associated with adverse health effects like carcinogenicity, mutagenicity, reproductive toxicity, developmental toxicity, and endocrine activity. We approach organohalogen flame retardants as a class because RCW 70A.350.010[85] defines them collectively as a priority chemical. Another reason to

[82] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.040
[83] https://apps.ecology.wa.gov/publications/summarypages/2204018.html
[84] https://apps.ecology.wa.gov/publications/summarypages/2004019.html
[85] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.010

regulate the chemical class is that substituting one organohalogen flame retardant for another grows the potential for exposure to both currently used organohalogen flame retardants and cumulative exposure to persistent legacy organohalogen flame retardants.

We determined that restricting organohalogen flame retardants in the two applicable priority consumer products would reduce a significant use of these chemicals, reduce the potential for human exposure, protect sensitive populations, and protect sensitive species.

Comment 1.3.D.6

Commenters

- Keane, John (Association of Home Appliance Manufacturers)
- Min-yung, Jun (Korean Agency for Technology and Standards)

Summary of comments

Comment suggests the proposed restrictions on organohalogen flame retardants may reduce the range of purchasable products available in Washington.

Response

Thank you for your comment. The Washington State Legislature passed the Pollution Prevention for Healthy People and Puget Sound Act (Chapter 70A.350 RCW)[86] to make consumer products safer for people and the environment. The law gives us authority to restrict chemicals in products when safer alternatives exist.

We determined that there are safer, feasible, and available alternatives to using organohalogen flame retardants. In the Regulatory Determinations Report to the Legislature,[87] we concluded that:

- Safer flame retardants can be used in electric and electronic enclosures (for products intended for indoor use), are marketed in promotional materials for use in electric and electronic enclosures (for products intended for indoor use) and are already used in electric and electronic enclosures (for products intended for indoor use) and are available on the market.
- Recreational polyurethane foam products without flame retardants are marketed for the same uses as recreational polyurethane foam products with flame retardants, currently available on the commercial market, and currently used in gyms.

Throughout the development of the new chapter, we worked with stakeholders including industry to develop clear, achievable requirements. We made many changes to requirements in response to feedback from stakeholders and other interested parties

[86] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350&full=true
[87] https://apps.ecology.wa.gov/publications/summarypages/2204018.html

including modifying the scope of the priority consumer products, developing an exemption process, and delaying the effective date of restrictions.

Comment 1.3.D.7

Commenters

- Jahl, Lydia (Green Science Policy Institute)

Summary of comments

Commenter states that smoke alarms, sprinkler systems, and evacuation plans are safer and more effective ways of preventing fire injuries and that organohalogen flame retardants in foam products are not necessary.

Response

Thank you for your comment. Fire safety is of utmost importance, and we agree that most products do not need flame retardants to meet fire codes.

To better understand how to maintain fire safety and fire codes, we engaged with the Washington fire protection community. The information they shared supports the determination that flame retardants are not necessary in these products to meet flammability standards and that people use other approaches to meet fire safety requirements.

Examples of recommendations to ensure fire safety include (TURI, 2018):

- A fire evacuation plan for the facility approved by the local fire department.
- An appropriate sprinkler system that transmits an alarm to a monitoring system.
- Egress from all points in the building compliant with the requirements of the existing Washington state building code.
- Adherence to all state and local requirements for fire system impairments.
- General fire safety practices in facilities that contain recreational polyurethane foam products, including fire safety practices for hot work activities such as welding.

However, we still leveraged relevant product flammability standards to ensure we did not compromise on fire safety when identifying alternatives.

Comment 1.3.D.8

Commenters

- Losey, Barbara (Alkylphenols & Ethoxylates Research Council)

Summary of comments

Commenter does not support a restriction of alkylphenol ethoxylates in laundry detergent because nonylphenol ethoxylates and octylphenol ethoxylates do not pose significant exposure or risk in Washington.

Response

Thank you for your comment. Restricting the use of alkylphenol ethoxylates (APEs) in laundry detergent would reduce a significant use of APEs and a significant source of APEs in the environment because:

APEs are associated with health and environmental concerns.

Discharges of laundry detergent are a significant source of APEs in Washington state.

APEs and their breakdown products are associated with health and environmental concerns—such as hormone disruption, aquatic toxicity, and persistence. Monitoring studies find APEs in almost all environmental media in Washington.

We reviewed studies that detected APEs and their degradation products in environmental media in Washington state. This includes detection of APEs in effluent from wastewater treatment plants, stormwater runoff, streams, rivers, and estuarine and marine waters (Ecology, 2010b; King County, 2007; Meador et al., 2016). The studies also explained that APEs and alkylphenols (APs) were detected in tissues of fish from Washington state lakes and rivers (Ecology, 2016b; Meador et al., 2016).

In the Priority Consumer Products Report,[88] we estimated that on-premise laundries in Washington discharge approximately two million pounds of laundry detergent, containing up to 370,000 pounds of nonylphenol ethoxylates, per year (Ecology, 2020a).

Chapter 70A.350 RCW[89] identified phenolic compounds as a priority chemical, directed us to identify priority consumer products that contain priority chemicals, and authorized us to adopt restrictions if we find safer, feasible, and available alternatives. The law does not require a risk assessment to identify priority consumer products or significant sources or uses.

Another Washington law, the Washington State Children's Safer Products Act—Chapter 70A.430 RCW[90]—also includes nonylphenol ethoxylates and octylphenol ethoxylates on the Washington Chemicals of High Concern to Children (CHCC) reporting list.

Comment 1.3.D.9

Commenters

- Swick, Derek (Can Manufacturers Institute)

Summary of comments

Commenter states it is not necessary to restrict the use of bisphenols in can linings because they are already strictly regulated by the US Food and Drug Administration.

[88] https://apps.ecology.wa.gov/publications/summarypages/2004019.html
[89] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350&full=true
[90] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.430

Response

Thank you for your comment. The Washington State Legislature identified phenolic compounds as a priority chemical and directed us to identify priority consumer products and determine the availability and feasibility of safer alternatives.

We identified food cans and drink cans as priority consumer products in the Priority Consumer Products Report[91] and determined that there are safer, feasible, and available alternatives to using bisphenols in drink can liners. Therefore, we recommended a restriction for bisphenols in drink cans and a notification requirement for bisphenols in food cans.

Bisphenols are endocrine disruptors that can have biological impacts at low concentrations. Consumption of canned food is associated with higher exposure to bisphenols and can lead to disproportionate health impacts for people consuming more canned food.

Chapter 70A.350 RCW[92] directs us to consider restrictions that may be consistent with regulatory actions by other states or nations, but the law does not direct us to wait for federal actions. We acted now because the linings in drink cans and food cans contain bisphenols and some bisphenols are linked to cancer, hormone disruption, reproductive toxicity, and developmental toxicity, and some are toxic to fish.

Comment 1.3.D.10

Commenters

- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests Ecology should first regulate personal, family, and household use products.

Response

Thank you for your comment. The Washington State Legislature directed us to implement a regulatory program to reduce toxic chemicals in consumer products and RCW 70A.350.010[93] defines "consumer product" as:

> "any item, including any component parts and packaging, sold for residential or commercial use."

In the Priority Consumer Products Report,[94] submitted to the Legislature, we identified priority consumer products that are a significant source or use of priority chemicals. The priority consumer products in the report submitted to the Legislature and in the new chapter include but are not limited to "personal, family, and household use products."

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[91] https://apps.ecology.wa.gov/publications/summarypages/2004019.html
[92] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350
[93] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.010
[94] https://apps.ecology.wa.gov/publications/summarypages/2004019.html

1.4 Preliminary Regulatory Analyses

The following comments relate to the Preliminary Regulatory Analyses developed for the Safer Products rulemaking.

Comment 1.4.A

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Harmon, Patrick (BASF Corporation)
- Shestek, Tim (American Chemistry Council)

Summary of comments

Comment suggests that Ecology should use best practices outlined in guidance for federal regulatory agencies and should conduct a more rigorous and thorough cost-benefit analysis.

Response

Thank you for your comment. Regarding the use of NAICS categories, we identified potentially impacted NAICS codes at the 6-digit level, to capture potentially impacted manufacturers and wholesalers. We agree that this approach is likely to capture a wider set of entities than is likely to be affected, but chose the approach to avoid missing potentially impacted parties. More detailed data drilling down to more specific product lines was not available. Ideally, we would have data that would reflect both sales and employment attributes of manufacturers and wholesalers, as needed for analysis under the Administrative Procedure Act (APA) and Regulatory Fairness Act (RFA). As a worst-case sales loss approach implicitly assumes that manufacturers are unable to comply for some period of time, we believe this approach balances reduced precision due to use of NAICS categories, with intentional overestimation by casting a wider net in terms of affected entities.

Regarding comments referring to following established principles and practices in federal guidance, we followed established principles and practices consistent with those outlined in guidance in various jurisdictions, including federal and international approaches. It is important to note that, under any of these approaches, while an ideal world would provide detailed technical, scientific, and economic data to assess changes to supply curves and market response, this is not the case for the universe of chemicals, products, and markets affected by the proposed rule. Based on data availability and discussion with our technical experts, we decided to estimate cost based on losses indicating how much revenue a business would lose if not adapted to the new regulations before the effective date. Following that, in Chapter 3 we identified losses in sales for businesses in the U.S. with sales in Washington. We also note that the rule does not indicate what approach manufacturers must take to comply, and discuss various potential technical and marketing approaches, so for clarity and consistency, we chose an illustrative Washington state market-only revenue-loss approach.

Regarding assessment of the costs of alternatives, the law does not focus on the cost of the alternatives. The law directs us to determine whether safer alternatives are feasible and available. In assessing availability, we followed the Interstate Chemical Clearinghouse Guide for Alternatives Assessments and conducted a level one “cost and availability” analysis. In this analysis, we identified alternatives as available if they were already used for the application of interest. The basic underlying premise is that alternatives would not be widely used if they were not economically viable.

This approach allows us to look at the alternative process as a whole in determining availability. The price of a product using an alternative may not be representative of the price of the alternative. For example, the cost of a computer is dependent on much more than just the cost of the plastic around the outside. If we relied on the price of products using alternatives to assess availability, we’d likely miss viable alternatives. Further, cheaper alternatives may be more hazardous. If we only considered alternatives available if they were less expensive than priority chemicals, we would be missing an opportunity to reduce disproportionate exposures. People shouldn’t be exposed to toxic chemicals because they can’t afford the more expensive consumer products. If the rule does not regulate these chemicals, then we would lose an opportunity to reduce disproportionate exposures and protect sensitive populations and species. Relying solely on the cost of alternatives would therefore not meet the goals and objectives of the authorizing statute.

Regarding analytic structure, we appreciate commenter recommendations regarding additional analysis such as:

- Estimating changes in consumer surplus (CS) and producer surplus (PS) associated with restrictions.
- Externalities estimating the risk of chemicals. Following the statute, we used a hazard-based approach for finding safer alternatives, but not a risk-based approach because law defines safer as "less hazardous" not "less risky" (pg.64).

We do not have adequate data for estimating CS/PS, as this would necessitate development of supply and demand curves for individual product subsectors if not individual product lines. It would also require individual demand data on products, as well as data not only for Washington state but across various markets across which manufacturers and wholesalers make marketing decisions.

Regarding cited studies and benefits discussion related to ortho-phthalates, we followed the common practice of citing available information, and scaling or extrapolating numbers to Washington's population. In this analysis, we relied on available epidemiological and environmental data to understand how reducing the use of ortho-phthalates may benefit people and the environment. Epidemiological studies do have limitations. Confounders and effect moderators can cloud the relationship between an exposure and disease. In general, however, with ortho-phthalates, we observed a suite of toxic effects in animals and similar biological impacts in humans. In the Regulatory Determinations Report, we build on the animal data discussed in the phase 3 work and incorporate discussion of epidemiological endpoints for which we have relatively consistent data. These studies are used to demonstrate the potential benefits of this restriction.

Across this entire category of comments, we understand that under circumstances that take an early protective approach and address products with multiple sources, complex attributes and markets, and emerging chemicals of concern, detailed information may be limited. We have therefore added discussion to the Final Regulatory Analyses[95] for this rulemaking, clarifying points of uncertainty and extrapolation assumptions and conditions throughout our approach.

Comment 1.4.B

Commenters

- Shestek, Tim (American Chemistry Council)

Summary of comments

Comment suggests that Ecology should use NAICS codes to estimate costs rather than using NAICS groupings.

Response

Thank you for your comment. We identified potentially impacted NAICS codes at the 6-digit level, to capture potentially impacted manufacturers and wholesalers. We agree that this approach is likely to capture a wider set of entities than is likely to be affected but chose the approach to avoid missing potentially impacted parties. More detailed data drilling down to more specific product lines was not available. Ideally, we would have data that would reflect both sales and employment attributes of manufacturers and wholesalers, as needed for analysis under the Administrative Procedure Act (APA) and Regulatory Fairness Act (RFA). As a worst-case sales loss approach implicitly assumes that manufacturers are unable to comply for some period of time, we believe this approach balances reduced precision due to use of NAICS categories, with intentional overestimation by casting a wider net in terms of affected entities.

Comment 1.4.C

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Shestek, Tim (American Chemistry Council)

Summary of comments

Comment suggests that Ecology should analyze how the proposed restrictions may affect costs, performance, or desirability of products.

Response

Thank you for your comment. Regarding costs of redesigning products, we do not have adequate data and technical information to estimate cost of individual redesigns. We do not have sufficient information on chemical formulation of proposed products, in many cases due to that information being a trade secret or confidential business information.

[95] https://apps.ecology.wa.gov/publications/summarypages/2304032.html

As discussed in the analysis, this makes it difficult or impossible to estimate product redesign costs. Such estimates would require detailed information, such as quantity of alternative/safer chemicals or non-chemical product inputs; what the redesign would entail as applied to the attributes of each product line in question (which inherently vary by manufacturer, market, and line as needed to differentiate and make the product competitive); and the corresponding changes to product pricing/marketing decisions and product attributes. We added discussion to this effect to the Final Regulatory Analyses[96] for this rulemaking, including how various redesign decisions might affect costs and benefits.

Regarding comments related to methodology, we followed established principles and practices consistent with those outlined in guidance in various jurisdictions, including federal and international approaches. It is important to note that, under any of these approaches, while an ideal world would provide detailed technical, scientific, and economic data to assess changes to supply curves and market response, this is not the case for the universe of chemicals, products, and markets affected by the proposed rule. Based on data availability and discussion with our technical experts, we decided to estimate cost based on losses indicating how much revenue a business would lose if not adapted to the new regulations before the effective date. Following that, in Chapter 3 we identified losses in sales for businesses in the US with sales in Washington. We also note that the rule does not indicate what approach manufacturers must take to comply, and discusses various potential technical and marketing approaches, so for clarity and consistency, we chose an illustrative Washington state market-only revenue-loss approach.

Regarding comments related to the costs and benefits of alternative regulatory requirements, the Least Burdensome Alternative relates to the degree of burden, and whether alternatives meet the goals and objectives of the authorizing statute. The Cost Benefit Analysis does not analyze the impacts of alternatives that were excluded due to not meeting the goals and objectives of the statute, regardless of the compliance burden they would impose and whether it would potentially be lower than under the rule.

Comment 1.4.D

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)

Summary of comments

Comment suggests that Ecology should meaningfully consider less burdensome regulatory approaches.

[96] https://apps.ecology.wa.gov/publications/summarypages/2304032.html

Response

Thank you for providing specific recommended alternative approaches. We considered them and added them to the Least Burdensome Alternative analysis in the Final Regulatory Analyses[97] for this rulemaking.

Comment 1.4.E

Commenters

- Shestek, Tim (American Chemistry Council)

Summary of comments

Commenter states the proposed rule is not the least burdensome alternative because Ecology failed to analyze how the proposed restrictions may affect costs, performance, or desirability of products.

Response

Thank you for your comment. The Least Burdensome Alternative analysis under the Administrative Procedure Act (APA) must consider various factors, including but not limited to the compliance burden on those required to comply with the rule. These include the goals and objectives of the authorizing statute, including its specific directives to Ecology. This analysis does not consider indirect and induced impacts of broader market responses in the state and in other state or international markets in which products are sold, as they are not a compliance burden. These market responses could include demand response to specific product attributes that may be affected by compliance with the rule.

Note that we did, however, estimate a set of worst-case scenarios in which compliance was difficult or impossible to achieve over various periods of time. We then included these potential losses in our Regional Economic Models Inc. (REMI) modeling, which models indirect and induced impacts across the state (including accounting for changes across the Washington market versus markets outside the state). We expect the impacts of product attributes to be within the bounds of these scenarios, if they do affect ultimate consumer purchasing decisions in a market uniformly covered by the rule.

We included additional language throughout the Final Regulatory Analyses[98] for this rulemaking to reflect how product attributes can underly or augment the consumer/market responses modeled.

We considered every request to delay effective dates. In some cases, such as for the restriction on the use of ortho-phthalates in personal care and beauty products, we decided not to delay the effective date. Data from California suggests that the market for personal care and beauty care products has largely moved away from using ortho-phthalates.

[97] https://apps.ecology.wa.gov/publications/summarypages/2304032.html
[98] https://apps.ecology.wa.gov/publications/summarypages/2304032.html

Comment 1.4.F

Commenters

- Jacobs, Leo
- Keane, John (Association of Home Appliance Manufacturers)
- Shestek, Tim (American Chemistry Council)

Summary of comments

Comment suggests the proposed restriction on organohalogen flame retardants will burden manufacturers, will disrupt the appliance industry, and reduce the availability of appliance products.

Response

Thank you for your comment. In our assessment of safe and available alternatives, we identified multiple options for current users of flame retardants. Our analysis, nonetheless, considered a worst-case scenario in which industry is unable to comply (and therefore unable to sell products in Washington) for various periods of time. Our Regional Economic Models Inc. (REMI) modeling of the impacts of these losses reflects estimated impacts within the affected industries and across all industries in the state that could result from changes in supply and resulting market response. We added language to the Final Regulatory Analyses[99] for this rulemaking to reflect the underlying types of market changes and processes that inform those results, including potential reduced product availability or shift among the types of products available, and changes to product pricing.

We don't expect the new rule to cause widespread disruption for any industry. We found available alternatives that are already used in appliances. In outreach work with appliance manufacturers, we learned that the use of PFAS is necessary in many appliances for anti-drip functions. We changed the rule to clarify that PFAS used as an anti-drip agent is out of the scope of this restriction. This significantly alleviated concerns. However, if there are specific components that cannot use alternatives, we encourage them to submit an exemption request.

1.5 State Environmental Policy Act

The following comment relates to the Determination of Nonsignificance and Environmental Checklist developed for the Safer Products rulemaking.

Comment 1.5

Commenter

- Shestek, Tim (American Chemistry Council)

[99] https://apps.ecology.wa.gov/publications/summarypages/2304032.html

Summary of comments

Commenter states that Ecology violated SEPA by failing to adequately consider whether the draft rule has any probable significant adverse environmental impacts. Additionally, the commenter included the following statements.

A. Neither the SEPA Checklist nor the referenced documents adequately discuss the cumulative impacts of the draft rule.

B. By choosing to regulate priority chemicals as a class, Ecology precluded the chemicals within that class from being safely used in priority consumer products, and from being considered as safer alternatives.

C. Ecology should have considered impacts from increased fire risks to Washington consumers.

Response

Thank you for your comment. We completed the Environmental Checklist to determine whether the environmental impacts from the proposed rule are significant. To meet the threshold for a "significant" action under the State Environmental Policy Act (SEPA), there must be a "reasonable likelihood of more than a moderate adverse impact on environment quality" which depends on the "context and intensity" of project impacts (WAC 197-11-794[100]).

After considering the proposed rule, the reports to the Legislature, the analyses conducted to implement Phase 2 and 3 of the Safer Products for Washington program, and all feedback from stakeholders and other interested parties throughout Phases 2 – 4, we determined the proposed rule is unlikely to have a significant adverse environmental impact. Therefore, we issued a Determination of Nonsignificance.

Comment 1.5.A

Neither the SEPA Checklist nor the referenced documents adequately discuss the cumulative impacts of the draft rule.

Response

WAC 197-11-060(4)(e)[101] specifies that assessing the cumulative impacts is only required when developing an Environmental Impact Statement. After considering the proposed rule, the reports to the Legislature, the analyses conducted to implement Phase 2 and 3 of the Safer Products for Washington program, and all feedback from stakeholders and other interested parties throughout Phases 2 – 4, we determined the proposed rule is unlikely to have a significant adverse environmental impact. Therefore, we issued a Determination of Nonsignificance and did not develop an Environmental Impact Statement.

[100] https://app.leg.wa.gov/wac/default.aspx?cite=197-11-794
[101] https://app.leg.wa.gov/WAC/default.aspx?cite=197-11&full=true#197-11-060

As allowed by the Environmental Checklist, we incorporated additional studies and reports by reference. We described the proposed rule and the interrelated aspects that led up to the proposal, including previous analyses of environmental impacts.

In the SEPA Determination of Nonsignificance and the Environmental Checklist[102] for the proposed rule, we provided an overview of the environmental impacts from the priority chemicals and the environmental impacts from the proposed restrictions. The overview is based on the Regulatory Determinations Report,[103] which includes:

- A definition of the scope of the priority chemical class.
- An overview of the hazards of the priority chemical class.
- A review of the technical analysis for each priority consumer product including:
    - The scope of the priority consumer product under consideration.
    - The function of the priority chemical in the priority consumer product.
    - An assessment of whether the alternatives are safer, feasible, and available.
    - A summary of how the potential regulation would reduce a significant source or use of the priority chemical.

We developed the proposed rule to comply with Chapter 70A.350 RCW,[104] which directs us to:

- Identify priority consumer products that are a significant source or use of priority chemicals and report to the Legislature. We submitted the Priority Consumer Products Report to the Legislature[105] in July 2020.
- Determine regulatory actions to increase transparency in product ingredients and reduce the use of priority chemicals in priority consumer products. We submitted the Regulatory Determinations Report to the Legislature[106] in June 2022.
- Adopt rules by June 1, 2023, that implement the regulatory actions reported to the Legislature.

RCW 70A.350.040[107] states that we may restrict a priority chemical in a priority consumer product when we determine:

- Safer alternatives are feasible and available; and
- The restriction will reduce a significant source or use of a priority chemical; or

[102] https://apps.ecology.wa.gov/separ/Main/SEPA/Record.aspx?SEPANumber=202206037
[103] https://apps.ecology.wa.gov/publications/summarypages/2204018.html
[104] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350
[105] https://apps.ecology.wa.gov/publications/summarypages/2004019.html
[106] https://apps.ecology.wa.gov/publications/summarypages/2204018.html
[107] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.040

- The restriction is necessary to protect the health of sensitive populations or sensitive species.

When building our methods for identifying safer, feasible, and available alternatives, we relied on existing methods used by other authoritative bodies. We established transparent criteria with stakeholder feedback and based on existing methods including EPA's Safer Choice and Design for Environment (DfE) programs, and the GreenScreen® for Safer Chemicals Hazard Assessment Guidance (GreenScreen®).

All three frameworks rely on similar data sources—including the Globally Harmonized System (GHS)—for classifying information using a weight-of-evidence approach. We chose to build on these methods for many reasons, but mostly because:

- Each framework developed transparent criteria using a stakeholder process.
- Guidance documents for alternatives assessments recommend the frameworks.
- Published alternatives assessments conducted by (or on behalf of) Washington state or the Federal government use the frameworks.

We conducted a rigorous stakeholder advisory process and used stakeholder feedback to aid in decision-making. We provided our detailed technical methods to the public in February 2021 (Working Draft Criteria for Safer[108] and Working Draft Criteria for Feasible and Available[109]). These publications are discussed and referenced in the Regulatory Determinations Report[110] which is referenced in the SEPA Determination of Nonsignificance and the Environmental Checklist[111] for the proposed rule.

When applying these methods to identify safer, feasible, and available alternatives, we relied on authoritative reports from other government agencies, peer reviewed literature, third party reviewed or fully transparent hazard assessments, and other information we deemed authoritative. We used similar methods to identifying chemicals of high concern to children when implementing Chapter 70A.430 RCW[112] and developing Chapter 173-334 WAC.[113]

Data on the performance of alternatives was often not peer reviewed. In this case, we relied on data from manufacturers describing the function and performance of their product. The Interstate Chemicals Clearinghouse Alternatives Assessment Guide[114] supports using this approach.

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[108] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/SaferProductsWA_WorkingDraftCriteria_Safer.pdf

[109] https://www.ezview.wa.gov/Portals/_1962/Documents/saferproducts/SaferProductsWA_WorkingDraftCriteria_FeasibleAvailable.pdf

[110] https://apps.ecology.wa.gov/publications/summarypages/2204018.html

[111] https://apps.ecology.wa.gov/separ/Main/SEPA/Record.aspx?SEPANumber=202206037

[112] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.430

[113] https://apps.leg.wa.gov/wac/default.aspx?cite=173-334

[114] http://theic2.org/alternatives_assessment_guide#gsc.tab=0

Comment 1.5.B

By choosing to regulate priority chemicals as a class, Ecology precluded the chemicals within that class from being safely used in priority consumer products, and from being considered as safer alternatives.

Response

The Washington State Legislature identified the priority chemicals for the first cycle of the Safer Products for Washington program and intentionally gave us the discretion to regulate chemicals on a class basis. Chemicals within the class often share hazards or mechanisms of action. They are more likely to have similar hazards than those chemicals outside the class. Chemicals within a class of known hazardous chemicals are more likely to be hazardous and therefore require more scrutiny.

It can also prevent regrettable substitutions, as discussed in the Regulatory Determinations Report.[115] Most of the chemicals within the classes have a history of regrettable substitutions. That means chemicals of concern within the class were replaced by other chemicals within the class that turned out to be just as problematic. A recent example is replacing bisphenol A with bisphenol S. Both chemicals are endocrine disruptors. By acting on the entire class, we prevent the potential for regrettable substitution.

Our class-based approach does not preclude the possibility that chemicals in the class are safer. Instead, we assume chemicals within the class are potentially hazardous, unless we have sufficient data to demonstrate they are truly safer. If there is a chemical within the class that has sufficient data to demonstrate that it truly is less hazardous than the class, we exempted it. One example is the exemption for Tetramethylbisphenol F (TMBPF). We took this approach because we didn't want to stifle innovation toward safer chemistry.

We recognize chemical classes show toxicological diversity. That's why we developed a process for separating a particular chemical from the broader class when we find evidence it is safer than others in the class. For more information, see Appendix C: Criteria for Safer in the Regulatory Determinations Report.

For example, we approach organohalogen flame retardants (OFRs) as a class because RCW 70A.350.010[116] defines OFRs collectively as a priority chemical. In addition, the statute's directive is reasonable and well supported for several reasons:

- OFRs are persistent in the environment.
- Studies associate many organohalogen flame retardants with adequate toxicology information with adverse health effects, including carcinogenicity, mutagenicity, reproductive and developmental toxicity, and endocrine activity.

[115] https://apps.ecology.wa.gov/publications/summarypages/2204018.html
[116] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.010

- Discontinued use of some OFRs led to increased use of other OFRs—growing the potential for exposure to both currently used OFRs and cumulative exposure to current and persistent legacy OFRs.

Regulating the use of individual OFRs in consumer products on a single chemical basis, instead of using a class-based approach, would increase the likelihood of regrettable substitutions or continued use of hazardous chemicals. This imparts unacceptable potentially adverse effects on the environment and human health for future generations. It is necessary to consider OFRs together as a chemical class for several reasons:

- The persistent nature of OFRs.
- The association between exposure to many OFRs and adverse impacts on human health and the environment.
- The historical context of regrettable substitution for this class of chemicals that has led to the potential for ongoing and cumulative exposures.

Comment 1.5.C

Ecology should have considered impacts from increased fire risks to Washington consumers.

Response

Fire safety is extremely important. Our goal was to identify alternatives that meet the same fire safety standards as priority chemicals. We do not view meeting fire safety and reducing chemical hazards as trade-offs—we can have both.

We focused on finding alternatives that could replace priority chemical flame retardants and still meet the most stringent fire safety standards relevant for the priority consumer products. If an alternative compromises fire safety, we did not identify that alternative as feasible and available.

By using fire safety standards, we can leverage the expertise of organizations that set the fire safety standards with which products sold in the U.S. must comply. Fire safety standards include a set of prescribed flammability tests that products and components must meet. Using fire safety standards as a consistent metric allows us to evenly compare alternatives to priority chemicals.

In the Regulatory Determinations Report,[117] which we referenced in the SEPA Determination of Nonsignificance and the environmental checklist[118] for the proposed rule, we identified safer alternative flame retardants—including non-chemical alternatives for foam products—that meet relevant product flammability standards.

We found chemical alternatives that can meet the most stringent fire safety standards and are less hazardous for people and the environment. Most electric and electronic products must meet the standards listed in UL[119] 746C. The UL 746C standard applies

[117] https://apps.ecology.wa.gov/publications/summarypages/2204018.html
[118] https://apps.ecology.wa.gov/separ/Main/SEPA/Record.aspx?SEPANumber=202206037
[119] https://ulstandards.ul.com/

to polymeric (plastic) enclosures and refers to the UL 94 flammability ratings in its criteria. The UL 94 rating is specific to the external enclosure and ranges from HB[120]—which frequently require no chemical flame retardants—to 5VA and 5VB[120]—which require both chemical flame retardants and anti-drip agents.

We identified seven different resins that meet the UL 94 flammability standards, including three that meet the most stringent 5VA and 5VB standards. These resins only use safer chemical flame retardants.

We did not identify any current flammability standards for recreational polyurethane foam products. We discussed these consumer products with fire safety experts and decided to use California Technical Bulletin 117 (TB-117). Because we did not identify current fire safety standards relevant to recreational polyurethane foam products, we used the California TB-117 as a surrogate flammability standard to ensure we did not compromise on fire safety when identifying alternatives.

Because the alternatives meet the most stringent flammability standards, we do not think the restrictions in the new chapter will impact fire safety.

The new chapter does not specify alternatives that manufacturers must use, it only includes restrictions and reporting requirements for specific toxic chemicals—priority chemicals—in specific consumer products—priority consumer products. Those regulated by the new chapter have the option to determine how they comply with the new chapter.

2.0 Rule language

The following comments relate to the proposed rule.

2.1 Rule applicability

Comment 2.1.A

Commenters

- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests the chapter exempt repair parts and replacement parts used to refurbish finished products regulated by the Federal Aviation Administration or the Department of Defense.

Response

Thank you for your comment. Based on formal comments, we revised the rule so the requirements in the adopted chapter do not apply to repair parts or replacement parts made for priority consumer products that were manufactured before the effective date of the restriction.

[120] https://ulstandards.ul.com/

Additionally, WAC 173-337-015 (2)(a) states that this chapter does not apply to consumer products excluded from Chapter 70A.350 RCW.[121] And RCW 70A.350.030(5)(a)(v)[122] states that Ecology may not identify finished products certified or regulated by the Federal Aviation Administration or the Department of Defense as a priority consumer product.

Comment 2.1.B

Commenters

- Palin, Catherine (Alliance for Automotive Innovation)

Summary of comments

Comment suggests the chapter exempt repair parts and replacement parts used to refurbish motorized vehicles.

Response

Thank you for your comment. Based on formal comments, we revised the rule so the requirements in the adopted chapter do not apply to repair parts or replacement parts made for priority consumer products that were manufactured before the effective date of the restriction.

Additionally, WAC 173-337-015 (2)(a) states that this chapter does not apply to consumer products excluded from Chapter 70A.350 RCW.[121] And RCW 70A.350.030(5)(a)(vi)[122] states that Ecology may not identify motorized vehicles including on and off-highway vehicles as priority consumer products.

Comment 2.1.C

Commenters

- Mustico, Daniel (Outdoor Power Equipment Institute)

Summary of comments

Comment suggests the chapter exempt repair parts and replacement parts used to refurbish non-road mobile machinery.

Response

Thank you for your comment. Based on formal comments, we revised the rule so the requirements in the adopted chapter do not apply to repair parts or replacement parts made for priority consumer products that were manufactured before the effective date of the restriction.

Additionally, WAC 173-337-015 (2)(a) states that this chapter does not apply to consumer products excluded from Chapter 70A.350 RCW.[121] And RCW 70A.350.030(5)(a)(vi)[122] states that we may not identify motorized vehicles including on and off-highway vehicles as priority consumer products.

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[121] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350
[122] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.030

Comment 2.1.D

Commenters

- Wasil, Jeff (National Marine Manufacturers Association)

Summary of comments

Comment suggests the chapter exempt recreational boats.

Response

Thank you for your comment. We did not identify recreational boats—or electronics installed and sold as part of the boat—as priority consumer products. The priority consumer products covered by the new chapter are described in the applicability subsection in sections 110 – 114. Priority consumer products intended for outdoor use such as those addressed in WAC 173-337-110 (4) and WAC 173-337-112 (2) are subject to notification requirements under those provisions irrespective of whether those products may be used in recreational boats.

The adopted chapter also allows a person to request an exemption from requirements in the chapter. A person who manufactures a priority consumer product that contains a priority chemical in Washington state used in recreational boats may request an exemption. For these reasons, we did not make the change requested.

Comment 2.1.E

Commenters

- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests the chapter exempt existing stock.

Response

Thank you for your comment. The restrictions in the adopted chapter do not apply to existing stock and the chapter defines “existing stock” as consumer products in commerce at the time a restriction takes effect. Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.1.F

Commenters

- Harms, Luke (Whirlpool Corporation)
- Keane, John (Association of Home Appliance Manufacturers)
- Moyer, Daniel (Consumer Technology Association)
- Prero, Judah (Chemical Users Coalition)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests the chapter exempt repair parts and replacement parts regardless of the manufacture date of the repair part or replacement part.

Response

Thank you for your comment. Based on formal comments, we revised the rule so the requirements in the adopted chapter do not apply to repair parts or replacement parts made for priority consumer products that were manufactured before the effective date of the restriction.

Comment 2.1.G

Commenters

- Moyer, Daniel (Consumer Technology Association)
- Prero, Judah (Chemical Users Coalition)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests the chapter exempt priority consumer products that are manufactured, sold, or distributed solely for research and development purposes.

Response

Thank you for your comment. The requirements in the adopted chapter apply to any person who manufactures, sells, or distributes a priority consumer product that contains a priority chemical in Washington state. The adopted chapter also allows a person to request an exemption from requirements in the chapter. If a person manufactures, sells, or distributes a priority consumer product that contains a priority chemical in Washington state for research and development purposes, they may request an exemption. For these reasons, we did not make the change requested.

Comment 2.1.H

Commenters

- Kooy, Steve (The Business and Institutional Furniture Manufacturers Association)
- Moyer, Daniel (Consumer Technology Association)
- Prero, Judah (Chemical Users Coalition)
- Rabiah, Janan (Association for Contract Textiles)

Summary of comments

Comment suggests Ecology should not consider residual chemicals from recycled materials as “intentionally added.”

Response

Thank you for your comment. Based on formal comments, we revised the rule so in the adopted chapter, the definition of "intentionally added priority chemical" now includes the statement, "Chemicals present from the use of recycled materials are not considered 'intentionally added priority chemicals.'"

Comment 2.1.I

Commenters

- Swick, Derek (Can Manufacturers Institute)

Summary of comments

Comment suggests the chapter should focus on retailers.

Response

Thank you for your comment. Chapter 70A.350 RCW[123] focuses on the manufacture, wholesale, distribution, sale, retail sale, or use of a priority chemical in a priority consumer product. Since the law does not focus solely on retailers, the adopted Chapter 173-337 WAC also does not focus on retailers only. Because the requested change would be inconsistent with the statute, we were unable to make this change.

2.2 Requesting an exemption

Comment 2.2.A

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Miller, Bob (Albemarle Corp.)

Summary of comments

Comment suggests the chapter not limit the factors Ecology considers when making a decision on a request for exemption.

Response

Thank you for your comment. Based on formal comments, we revised the rule so the objective factors we will use when evaluating exemption requests include, but are not limited to the examples included in WAC 173-337-020 (2).

Comment 2.2.B

Commenters

- Moyer, Daniel (Consumer Technology Association)
- Prero, Judah (Chemical Users Coalition)

[123] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350

- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests the chapter not require entities comply with the chapter while Ecology makes a decision on their request for exemption.

Response

Thank you for your comment. Based on formal comments, we revised the rule so a person who satisfies the requirements in subsections (3) and (4) is temporarily exempt from the requirements from which they requested an exemption until we make a decision on their request.

Comment 2.2.C

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Keane, John (Association of Home Appliance Manufacturers)
- Miller, Bob (Albemarle Corp.)

Summary of comments

Comment suggests the chapter include a formal appeal process for entities who have their initial request for exemption denied by Ecology.

Response

Thank you for your comment. Based on formal comments, we revised the rule so the adopted chapter now states a person adversely affected by our initial decision about a request for exemption from the requirements of this chapter may request a review of that decision by the Ecology director or their designee.

2.3 Definitions

Comment 2.3.A.1

Commenters

- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests the definition of “consumer product” not include packaging.

Response

Thank you for your comment. RCW 70A.350.010(1)[124] states “consumer product” means any item, including any component parts and packaging, sold for residential or commercial use. Chapter 173-337 WAC includes the law’s definition of “consumer

[124] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.010

product," which includes packaging. Because the requested change would be inconsistent with the statute, we were unable to make this change.

Comment 2.3.A.2

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Miller, Bob (Albemarle Corp.)

Summary of comments

Comment suggests the definition of "consumer product" not apply to products used in commercial and industrial settings.

Response

Thank you for your comment. RCW 70A.350.010(1)[125] states "consumer product" means any item, including any component parts and packaging, sold for residential or commercial use. Chapter 173-337 WAC includes the law's definition of "consumer product," which includes any item sold for residential or commercial use. Because the requested change would be inconsistent with the statute, we were unable to make this change.

Comment 2.3.B.1

Commenters

- Keane, John (Association of Home Appliance Manufacturers)
- Moyer, Daniel (Consumer Technology Association)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests the definition of "electronic display" not include displays that are integrated with appliances and are not available for purchase as separate products by end-users.

Response

Thank you for your comments. WAC 173-337-112 (1)(b)(ii)(B) clarifies that the requirements do not apply to "displays that are integrated with appliances and are not available for purchase as separate products by end-users." Because the adopted chapter includes this clarification in section 112, we did not revise the definition of "electronic display."

[125] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.010

Comment 2.3.B.2

Commenters

- Moyer, Daniel (Consumer Technology Association)

Summary of comments

Comment suggests the definition of “electronic display” not include displays with a screen area smaller than or equal to one hundred square centimeters.

Response

Thank you for your comments. Based on formal comments, we revised section 112 in the adopted chapter. WAC 173-337-112 (1)(b)(ii)(B) now clarifies that the requirements do not apply to “displays with a screen area smaller than or equal to one hundred square centimeters or fifteen and one-half square inches.”

Comment 2.3.B.3

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests the definition of “electronic display” match the definition of other regulating authorities—New York and the European Union.

Response

Thank you for your comments. Based on formal comments, we revised section 112 in the adopted chapter. WAC 173-337-112 (1)(b)(ii)(B) now clarifies that the requirements do not apply to “displays with a screen area smaller than or equal to one hundred square centimeters or fifteen and one-half square inches.” This clarification better aligns with New York’s and the European Union’s definition of “electronic display.”

Comment 2.3.C.1

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Keane, John (Association of Home Appliance Manufacturers)

Summary of comments

Comment suggests the definition of “external enclosure” should match the definition in the UL standard.

Response

Thank you for your comments. The definition of "external enclosure" in the adopted chapter matches the UL[126] 1995 definition of "external enclosure."

Comment 2.3.C.2

Commenters

- Prero, Judah (Chemical Users Coalition)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests the definition of "external enclosure" should be changed to "External enclosure means the plastic enclosure and stands of electronic displays."

Response

Thank you for your comments. The requirements in WAC 173-337-112 (1) and (2) apply to electric and electronic products with external enclosures, not just stands and displays. The requirements in WAC 173-337-112 (1) and (2) apply to electronic stands if they are part of the enclosure or if they contain electronic components. Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.3.C.3

Commenters

- Moyer, Daniel (Consumer Technology Association)

Summary of comments

Comment suggests the definition of "external enclosure" include "finished."

Response

Thank you for your comments. Based on formal comments, we revised the rule and added "finished" to the definition of "external enclosures," WAC 173-337-112 (1)(a)(iii)(B), and WAC 173-337-112 (2)(a)(iii)(B) in the adopted chapter.

Comment 2.3.C.4

Commenters

- Keane, John (Association of Home Appliance Manufacturers)

Summary of comments

Commenter asked "Does outer casing mean the most outer casing or any internal casings housing electrical items or any parts of an outer casing?

[126] https://ulstandards.ul.com/

Response

Thank you for your comments. The adopted chapter does not use the terms “outer” or “casing,” but it does use “external enclosure.” The definition of “external enclosure” in the adopted chapter matches the UL[127] 1995 definition of “external enclosure.” The adopted chapter states:

> “‘External enclosures’ means the external part of the finished product that renders inaccessible all or any parts of the equipment that may otherwise present a risk of electric shock, or retards propagation of flame initiated by electrical disturbances occurring within, or both.”

Comment 2.3.D

Commenters

- Moyer, Daniel (Consumer Technology Association)

Summary of comments

Comment suggests the definition of “flame retardant” include the statement “flame retardants do not include PFAS.”

Response

Thank you for your comments. The definition of “flame retardant” in the adopted chapter includes the statement, “Chemicals used in the product to provide anti-drip function are not flame retardants if other chemicals are explicitly used for the purpose of flame retardancy.” We believe this responds to the suggestion to include the statement that flame retardants do not include PFAS.

Additionally, if through product testing we detect a chemical in WAC 173-337-112 (1)(c)(ii) or (2)(c)(ii), the regulated person may rebut the presumption. Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.3.E.1

Commenters

- Moyer, Daniel (Consumer Technology Association)

Summary of comments

Comment suggests the definition of “inaccessible electronic component” includes “consumer” and not include “abuse.”

Response

Thank you for your comments. RCW 70A.350.010(1)[128] states, “‘Inaccessible electronic component’ means a part or component of an electronic product that is located inside and entirely enclosed within another material and is not capable of coming out of the

[127] https://ulstandards.ul.com/
[128] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.010

product or being accessed during any reasonably foreseeable use or abuse of the product."

Chapter 173-337 WAC includes the law's definition of "inaccessible electronic component," which includes "abuse" and does not include "consumer." Because the requested change would be inconsistent with the statute, we were unable to make this change.

Comment 2.3.E.2

Commenters

- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests the definition of "inaccessible electronic component" includes "during any reasonably foreseeable consumer use or abuse of the product."

Response

Thank you for your comments. RCW 70A.350.010(1)[129] states, "'Inaccessible electronic component' means a part or component of an electronic product that is located inside and entirely enclosed within another material and is not capable of coming out of the product or being accessed during any reasonably foreseeable use or abuse of the product."

Chapter 173-337 WAC includes the law's definition of "inaccessible electronic component," which does not include "consumer." Because the requested change would be inconsistent with the statute, we were unable to make this change.

Comment 2.3.E.3

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)

Summary of comments

Commenter asked for "clarifying language around 'functional form' to alleviate confusion concerning when internal components may be inaccessible once the product is in its fully assembled and in its functional form.

Response

Thank you for your comments. Based on formal comments, we revised the rule and added "finished" to the definition of "external enclosures," WAC 173-337-112 (1)(a)(iii)(B), and WAC 173-337-112 (2)(a)(iii)(B) in the adopted chapter.

[129] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.010

Comment 2.3.F.1

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Miller, Bob (Albemarle Corp.)
- Moyer, Daniel (Consumer Technology Association)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests the definition of “intended for indoor use” and the definition of “intended for outdoor use” conflict and that some products meet both definitions.

Response

Thank you for your comment. Based on formal comments, we revised the definitions of “intended for indoor use” and “intended for outdoor use.” The adopted chapter includes the following definitions.

- “Intended for indoor use” means a product not “intended for outdoor use” as defined in this chapter.
- “Intended for outdoor use” means a product designed for use in an outdoor setting and to maintain functionality after exposure to ultraviolet (UV) light, exposure to water, or immersion.

Comment 2.3.F.2

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)

Summary of comments

Comment suggests the definition of “intended for indoor use” “lacks sufficient detail and raises questions regarding what is the regulatory intent.”

Response

Thank you for your comment. Based on formal comments, we revised the definitions of “intended for indoor use” and “intended for outdoor use.” The adopted chapter includes the following definitions.

- “Intended for indoor use” means a product not “intended for outdoor use” as defined in this chapter.
- “Intended for outdoor use” means a product designed for use in an outdoor setting and to maintain functionality after exposure to ultraviolet (UV) light, exposure to water, or immersion.

Comment 2.3.F.3

Commenters

- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests the definition of “intended for outdoor use” needs clarification to distinguish true outdoor use products.

Response

Thank you for your comment. Based on formal comments, we revised the definitions of “intended for indoor use” and “intended for outdoor use.” The adopted chapter includes the following definitions.

- “Intended for indoor use” means a product not “intended for outdoor use” as defined in this chapter.
- “Intended for outdoor use” means a product designed for use in an outdoor setting and to maintain functionality after exposure to ultraviolet (UV) light, exposure to water, or immersion.

Comment 2.3.G

Commenters

- Moyer, Daniel (Consumer Technology Association)
- Prero, Judah (Chemical Users Coalition)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests the definition of “intentionally added chemical” is too broad and should not include chemicals used during the manufacturing process.

Response

Thank you for your comment. Chemicals intentionally added during the manufacturing of the product may remain in products. One example is the presence of residual monomers that served a function during the product manufacturing, but do not serve a function in the final product. For this reason, the definition of “intentionally added” in the adopted chapter includes a chemical that serves an intended function in the manufacturing of the product or part of the product. Because the scientific evidence available to us at this time does not support the reasons behind the requested change, we did not alter the proposed language.

Comment 2.3.H

Commenters

- Blackstock, Bill (Resilient Floor Covering Institute)

Summary of comments

Commenter supports the definition of “phthalates.”

Response

Thank you for your comment.

Comment 2.3.I

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)

Summary of comments

Comment suggests the chapter include a definition of “electrical product.”

Response

Thank you for your comment. Chapter 70A.350 RCW[130] includes examples of “electronic product.” We decided to specify the applicability for electric and electronic products with plastic external enclosures in section 112 instead defining “electrical product” in the chapter. WAC 173-337-112 (1)(a) and (2)(a) in the adopted chapter clarify the applicability for electric and electronic products with plastic external enclosures. Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.3.J

Commenters

- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests the chapter include a definition of “manufacture.”

Response

Thank you for your comment. This term is readily understood by industry and most people; therefore, we did not define the term in the adopted chapter.

Comment 2.3.K

Commenters

- Shestek, Tim (American Chemistry Council)

Summary of comments

Comment suggests the chapter include a definition of “violation” and a definition of “repeat offense.”

[130] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350

Response

Thank you for your comment. The adopted chapter uses the terms "violation" and "repeat offense" in section 030 – Enforcement and penalties. This language matches the language in RCW 70A.350.070.[131] We decided to not define the terms "violation" and "repeat offense" in the adopted chapter because they are readily understood by most people and a rule-specific definition is unnecessary.

2.4 Federal preemption

Comment 2.4

Commenters

- Palin, Catherine (Alliance for Automotive Innovation)

Summary of comments

Comment suggests that if a preemptive federal regulatory action occurs, Ecology should access the information reported to the EPA instead of requiring manufactures submit a notification to Ecology.

Response

Thank you for your comment. Chapter 70A.350 RCW[132] authorizes us to require a manufacturer to provide notice of the use of a priority chemical. The law does not authorize us to access information reported to the EPA. Manufacturers required to comply with Chapter 173-337 WAC may submit the information they submit to the EPA if it satisfies the requirements of Chapter 173-337 WAC. For these reasons, we did not make the change requested.

2.5 Equity and environmental justice

Comment 2.5

Commenter

- Peele, Cheri (Toxic-Free Future and Clean Production Action)

Summary of comments

Comment suggests adding "as a result of regulatory action" to the end of "This includes, but is not limited to, considering overburdened communities and low-income populations' ability to access safer consumer product."

Response

Thank you for your comment. Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language in WAC 173-337-050 (1)(e) as proposed is necessary.

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[131] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.070
[132] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350

2.6 Previously owned products

Comment 2.6.A

Commenter

- Evans, Ashley (King County Hazardous Waste Management Program)

Summary of comment

Comment suggests the chapter not allow secondhand stores to continue selling restricted priority consumer products manufactured before the effective date of the restriction.

Response

Thank you for your comment. The adopted chapter includes requirements based on the manufacture date of the priority consumer product. We decided to also apply the manufacture date to previously owned priority consumer products to be consistent with other elements in the chapter, to extend the useful life of priority consumer products, and to lessen the number of items discarded as solid waste. For these reasons, we did not make the change requested.

Comment 2.6.B

Commenters

- Prero, Judah (Chemical Users Coalition)
- Shestek, Tim (American Chemistry Council)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests the chapter not restrict the sale of previously owned restricted priority consumer products.

Response

Thank you for your comment. The adopted chapter restricts the sale of previously owned products to equitably reduce exposure to toxic chemicals in consumer products. The requirement focuses on the manufacture date to be consistent with other elements in the chapter, to extend the useful life of priority consumer products, and to lessen the number of items discarded as solid waste. For these reasons, we did not make the change requested.

Comment 2.6.C

Commenters

- Moyer, Daniel (Consumer Technology Association)

Summary of comments

Comment suggests the restriction of the sale of previously owned products not apply to repair parts or replacement parts manufactured before the effective date of the restriction.

Response

Thank you for your comment. Based on formal comments, we revised the rule so the section 055 requirements in the adopted chapter do not apply to repair parts or replacement parts made to refurbish a priority consumer product that was manufactured before the effective date of the restriction.

2.7 Reporting

Comment 2.7.A

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Miller, Bob (Albemarle Corp.)

Summary of comments

Comment suggests adding “known or reasonably ascertainable” to the reporting requirement.

Response

Thank you for your comment. The notification requirements in the adopted chapter focus on intentionally added chemicals. A person subject to the notification requirement can work with their material suppliers to determine if the priority chemical was intentionally added to the priority consumer product. The adopted chapter does not require manufacturers test their product to comply with the notification requirements. For these reasons, we did not make the change requested.

Comment 2.7.B.1

Commenters

- Rabiah, Janan (Association for Contract Textiles)

Summary of comments

Commenter supports the chapter requiring only one person or entity to submit a notification.

Response

Thank you for your comment.

Comment 2.7.B.2

Commenters

- Rabiah, Janan (Association for Contract Textiles)

Summary of comments

Comment suggests the chapter address that multiple entities are involved in the manufacturing and distribution of one priority consumer product.

Response

Thank you for your comment. The adopted chapter directs a person complying with the notification requirement to use the hierarchy in WAC 173-337-060 (1)(c) to determine which person or entity we hold primarily responsible for ensuring we receive a complete, accurate, and timely notification. Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.7.C.1

Commenters

- Moyer, Daniel (Consumer Technology Association)
- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests the chapter more clearly state when the reporting party must start tracking data and when the reporting party must submit notification to Ecology.

Response

Thank you for your comment. Based on formal comments, we revised the rule and clarified that the reporting party must submit a notification to Ecology in accordance with WAC 173-337-060 by January 31, 2025, and annually thereafter by January 31. The adopted chapter includes the new language in sections 110, 112, and 114.

Comment 2.7.C.2

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Kooy, Steve (The Business and Institutional Furniture Manufacturers Association)
- Rabiah, Janan (Association for Contract Textiles)

Summary of comments

Comment suggests the chapter delay the reporting requirement one year and require the reporting party submit notification to Ecology by January 31, 2026.

Response

Thank you for your comment. The adopted chapter requires persons subject to the notification requirements to start tracking intentionally used priority chemicals in priority consumer products in 2024 and to submit their first notification to Ecology by January 31, 2025. The adopted chapter requires the reporting party submit their first notification to Ecology approximately 18 months after the new chapter becomes effective. For these reasons, we did not make the change requested.

Comment 2.7.D

Commenters

- Kooy, Steve (The Business and Institutional Furniture Manufacturers Association)

Summary of comments

Comment suggests the chapter include a tiered reporting approach that allows the reporting of the CAS RN, the chemical class, or the hazard.

Response

Thank you for your comment. The adopted chapter requires the reporting party include in their notification to Ecology the name and CAS RN (registry number) of the priority chemical that is intentionally added. The adopted chapter also states that if the priority chemical:

- Has a CAS RN, the notification must include it.
- Does not have a CAS RN, then include the generic name of the chemical.

Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.7.E.1

Commenters

- Kooy, Steve (The Business and Institutional Furniture Manufacturers Association)

Summary of comments

Comment suggests the requirement for manufacturers to report the product category only include the highest level given a product.

Response

Thank you for your comment. The adopted chapter requires the reporting party include in their notification to Ecology the product category—or product categories—that contains the priority chemical. The adopted chapter also states that the product category means the “brick” level of the GS1 Global Product Classification (GPC) standard, which identifies products that serve a common purpose, are of a similar form or material, and share the same set of category attributes. These requirements are

consistent with Chapter 173-334 WAC,[133] which implements RCW 70A.430.060.[134] Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.7.E.2

Commenters

- Rabiah, Janan (Association for Contract Textiles)

Summary of comments

Commenter requests guidance from Ecology to help determine the appropriate brick level.

Response

Thank you for your comment. The adopted chapter requires the reporting party include in their notification to Ecology the product category that contains the priority chemical. The adopted chapter also states that the product category means the "brick" level of the GS1 Global Product Classification (GPC) standard, which identifies products that serve a common purpose, are of a similar form or material, and share the same set of category attributes.

A person subject to the notification requirement can work with their material suppliers to determine the product category that contains the priority chemical. In addition to the resources available online, we will provide compliance support to help people required to comply with Chapter 173-337 WAC.

We did not change the rule in response to this request.

Comment 2.7.F

Commenters

- Rabiah, Janan (Association for Contract Textiles)

Summary of comments

Comment suggests the chapter allow the reporting party to report concentrations of total fluorine instead of reporting concentrations of individual PFAS chemicals by CAS.

Response

Thank you for your comment. The notification requirements in the adopted chapter focus on intentionally added chemicals. A person subject to the notification requirement can work with their material suppliers to determine if the priority chemical was intentionally added to the priority consumer product. The adopted chapter does not require manufacturers test their product to comply with the notification requirements.

WAC 173-337-060 (3)(b)(v) requires the notification include the concentration range of each intentionally added priority chemical in each product component in each product

[133] https://apps.leg.wa.gov/wac/default.aspx?cite=173-334
[134] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.430.060

category. If a person required to comply with the notification requirement is unable to report concentrations of the each intentionally added priority chemical, they may request an exemption in accordance with section 020 in the adopted chapter.

Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.7.G.1

Commenters

- Kooy, Steve (The Business and Institutional Furniture Manufacturers Association)

Summary of comments

Comment suggests the chapter include broader ranges of concentrations.

Response

Thank you for your comment. The adopted chapter requires the reporting party include in their notification to Ecology the concentration range of each intentionally added priority chemical in each product component in each product category. The concentration ranges in section 060 in the adopted chapter are consistent with the ranges in Chapter 173-334 WAC,[135] which implements RCW 70A.430.060.[136] Because the requested change would be inconsistent with the statute, we were unable to make this change.

Comment 2.7.G.2

Commenters

Rabiah, Janan (Association for Contract Textiles)

Summary of comments

Comment suggests the chapter not include the reporting range “Less than 100 ppm.”

Response

Thank you for your comment. The adopted chapter requires the reporting party include in their notification to Ecology the concentration range of each intentionally added priority chemical in each product component in each product category. The concentration ranges in section 060 in the adopted chapter are consistent with the ranges in Chapter 173-334 WAC,[135] which implements RCW 70A.430.060.[136] Because the requested change would be inconsistent with the statute, we were unable to make this change.

[135] https://apps.leg.wa.gov/wac/default.aspx?cite=173-334
[136] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.430.060

Comment 2.7.H

Commenters

Rabiah, Janan (Association for Contract Textiles)

Summary of comments

Comment suggests the Ecology-designated notification database protect confidential business information.

Response

Thank you for your comment. Section 065 in the adopted chapter states that a person who submits information to Ecology may request that Ecology treat that information as confidential as provided in RCW 43.21A.160[137] by providing appropriate documentation supporting the request. Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

2.8 Confidential business information

Comment 2.8.A

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Shestek, Tim (American Chemistry Council)

Summary of comments

Commenter suggests Ecology ensure protection of all confidential business information submitted to comply with this chapter.

Response

Thank you for your comment. Section 065 in the adopted chapter states that a person who submits information to Ecology may request that Ecology treat that information as confidential as provided in RCW 43.21A.160[137] by providing appropriate documentation supporting the request. Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.8.B

Commenters

- Kooy, Steve (The Business and Institutional Furniture Manufacturers Association)

[137] https://apps.leg.wa.gov/rcw/default.aspx?cite=43.21A.160

Summary of comments

Commenter requests explanation of the process to protect confidential business information.

Response

Thank you for your comment. Section 065 in the adopted chapter states that a person who submits information to Ecology may request that Ecology treat that information as confidential as provided in RCW 43.21A.160[137] by providing appropriate documentation supporting the request.

According to RCW 43.21A.160, "The director shall give consideration to the request, and if such action would not be detrimental to the public interest and is otherwise within accord with the policies and purposes of this chapter, may grant the same."

We did not change the rule in response to this request.

2.9 Chemical class

Comment 2.9.A

Commenters

- Moyer, Daniel (Consumer Technology Association)
- Palin, Catherine (Alliance for Automotive Innovation)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests the chapter not regulate chemical classes and instead should regulate the chemicals recognized as harmful or of high concern.

Response

Thank you for your comment. The Washington State Legislature identified the priority chemicals for the first cycle of the Safer Products for Washington program and intentionally gave us the discretion to regulate chemicals on a class basis. Chemicals within the class often share hazards or mechanisms of action. They are more likely to have similar hazards than those chemicals outside the class. Chemicals within a class of known hazardous chemicals are more likely to be hazardous and therefore require more scrutiny.

It can also prevent regrettable substitutions. Most of the chemicals within the classes have a history of regrettable substitutions. That means chemicals of concern within the class were replaced by other chemicals within the class that turned out to be as problematic. Examples include replacing bisphenol A with bisphenol S. Both chemicals are endocrine disruptors. By acting on the entire class, we prevent the potential for regrettable substitution.

Regulating classes of chemicals instead of individual chemicals helps us avoid treating chemicals with limited data as safe. Instead, we assume they are potentially hazardous, unless we have sufficient data to demonstrate they are truly safer. If there is a chemical

within the class that has sufficient data to demonstrate that it truly is less hazardous than the class, we exempted it. An example of this is the exemption for Tetramethylbisphenol F (TMBPF). We took this approach because we didn't want to stifle innovation toward safer chemistry.

We recognize chemical classes show toxicological diversity. That's why we developed a process for separating a particular chemical from the broader class when we find evidence it is safer than others in the class. For more information, see Appendix C: Criteria for Safer in the Regulatory Determinations Report.[138]

We did not change the rule in response to this comment.

Comment 2.9.B

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Miller, Bob (Albemarle Corp.)
- Minggang, Zhao (People's Republic of China)
- Shestek, Tim (American Chemistry Council)

Summary of comments

Comment suggests the chapter not regulate chemical classes and instead sort them into groups by chemical structure, physicochemical properties, and predicted biologic activity."

Response

Thank you for your comment. The Washington State Legislature identified the priority chemicals for the first cycle of the Safer Products for Washington program and intentionally gave us the discretion to regulate chemicals on a class basis. In the Priority Consumer Products Report,[139] we added structural definitions to all chemical classes, so all the chemical classes are defined based on chemical structure.

Chemicals within the class often share hazards or mechanisms of action. They are more likely to have similar hazards than those chemicals outside the class. Chemicals within a class of known hazardous chemicals are more likely to be hazardous and therefore require more scrutiny.

It can also prevent regrettable substitutions. Most of the chemicals within the classes have a history of regrettable substitutions. That means chemicals of concern within the class were replaced by other chemicals within the class that turned out to be as problematic. Examples include replacing bisphenol A with bisphenol S. Both chemicals are endocrine disruptors. By acting on the entire class, we prevent the potential for regrettable substitution.

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[138] https://apps.ecology.wa.gov/publications/summarypages/2204018.html
[139] https://apps.ecology.wa.gov/publications/summarypages/2004019.html

Regulating classes of chemicals instead of individual chemicals helps us avoid treating chemicals with limited data as safe. Instead, we assume they are potentially hazardous, unless we have sufficient data to demonstrate they are truly safer. If there is a chemical within the class that has sufficient data to demonstrate that it truly is less hazardous than the class, we exempted it. An example of this is the exemption for Tetramethylbisphenol F (TMBPF). We took this approach because we didn't want to stifle innovation toward safer chemistry.

We recognize chemical classes show toxicological diversity. That's why we developed a process for separating a particular chemical from the broader class when we find evidence it is safer than others in the class. For more information, see Appendix C: Criteria for Safer in the Regulatory Determinations Report.[140]

We did not change the rule in response to this comment.

Comment 2.9.C

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Harms, Luke (Whirlpool Corporation)
- Keane, John (Association of Home Appliance Manufacturers)
- Miller, Bob (Albemarle Corp.)
- Minggang, Zhao (People's Republic of China)
- Moyer, Daniel (Consumer Technology Association)
- Palin, Catherine (Alliance for Automotive Innovation)
- Prero, Judah (Chemical Users Coalition)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests the chapter include a list of CAS RNs for every chemical.

Response

Thank you for your comment. The adopted chapter does not include a list of CAS RNs (registry numbers) for every priority chemical regulated by the chapter because this will prevent the chapter from regulating chemical classes. Developing lists of chemicals defeats the purpose of a class-based regulation. Chemicals with these shared molecular structures often share hazards. By regulating the class as a whole, we reduce the use of chemicals within the class and also prevent the use of future chemicals in the class. Many of the businesses in these industry sectors are limited by transparency so we often don't learn about the chemicals in the products until the products are sold to

[140] https://apps.ecology.wa.gov/publications/summarypages/2204018.html

consumers. If we included a list of chemicals in rule, that list would be inherently outdated.

The Washington State Legislature identified the priority chemicals for the first cycle of the Safer Products for Washington program and intentionally gave us the discretion to regulate chemicals on a class basis. For more information about regulating chemical classes, see the response to Comment 2.9.B.

We did not change the rule in response to this comment.

2.10 PFAS in priority consumer products

Comment 2.10.A

Commenters

- Palin, Catherine (Alliance for Automotive Innovation)

Summary of comments

Comment suggests the applicability in section 110 (2) match California's definition of "carpets and rugs."

Response

Thank you for your comment. Using California's definition of "carpets and rugs" would limit the applicability for this product category. We did not change the rule in response to this comment.

Comment 2.10.B.1

Commenters

- Kooy, Steve (The Business and Institutional Furniture Manufacturers Association)
- Rabiah, Janan (Association for Contract Textiles)

Summary of comments

Commenter requests clarification of "credible evidence."

Response

Thank you for your comment. The adopted chapter does not define "credible evidence." However, the adopted chapter does state "provide credible evidence supporting that statement and include information, data, or sources relevant to demonstrate that PFAS were not intentionally added." Credible evidence could include information, data, or sources relevant to demonstrate that PFAS were not intentionally added.

We will provide compliance support to help people required to comply with Chapter 173-337 WAC, including supporting manufacturers wishing to rebut the presumptions in the adopted chapter. Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.10.B.2

Commenters

- Moyer, Daniel (Consumer Technology Association)
- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests section 110 not include a rebuttable presumption that the detection of total fluorine indicates the intentional addition of PFAS.

Response

Thank you for your comment. The adopted chapter includes rebuttable presumptions to help us determine compliance with the chapter and be transparent in how we will make those determinations. To determine compliance, we will test a small subset of priority consumer products and if we detect the chemical listed (or at the specified concentration), we will contact the person required to comply. Then, that person may rebut the presumption by submitting a statement and including justification and supporting information. Or, instead of rebutting the presumption, they can work with us to get to compliance.

The rebuttable presumption is a tool used by Ecology and the regulated person to achieve compliance. Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

2.11 Ortho-phthalates in priority consumer products

Comment 2.11.A

Commenters

- Kravas, Khristina

Summary of comments

Comment suggests the chapter delay the effective date for the restriction in section 111 (1) for five years and include a tiered approach to compliance.

Response

Thank you for your comment. The adopted chapter states the restriction in WAC 173-337-111 (1)(c) take effect on January 1, 2025. We did not agree that a tiered approach to compliance was appropriate for this product category and did not delay the effective date because safer and feasible alternatives are available now. Delaying the effective date of the restriction allows manufacturers to continue using priority chemicals in priority consumer products. For these reasons, we did not make the change requested.

Comment 2.11.B

Commenters

- Blackstock, Bill (Resilient Floor Covering Institute)

Summary of comments

Commenter supports the effective date for the restriction in section 111 (2).

Response

Thank you for your comment.

Comment 2.11.C

Commenters

- Blackstock, Bill (Resilient Floor Covering Institute)

Summary of comments

Commenter supports the exemption of existing stock.

Response

Thank you for your comment.

Comment 2.11.D.1

Commenters

- Peele, Cheri (Toxic-Free Future and Clean Production Action)

Summary of comments

Comment suggests the numeric limit for the restriction in section 111 (2) is too high.

Response

Thank you for your comment. The restriction in WAC 173-337-111 (2) of the adopted rule states that no person may manufacture, sell, or distribute a priority consumer product described in (a) of this subsection that contains more than 1,000 ppm of any ortho-phthalate, individually or combined.

We based this restriction on a similar restriction for children's toys and feedback from industry representatives. The U.S. Consumer Product Safety Commission[141] has a restriction of no more than 0.1% by weight (1,000 ppm) of certain phthalates in children's toys and childcare articles. Test methods and related standards referenced in the Resilient Floor Covering Institute comment letter[142] indicate that resilient flooring products cannot exceed 1,000 ppm for individual or total ortho-phthalates. For these reasons, we did not make the change requested.

Comment 2.11.D.2

Commenters

- Blackstock, Bill (Resilient Floor Covering Institute)

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[141] https://www.cpsc.gov/Newsroom/News-Releases/2018/CPSC-Prohibits-Certain-Phthalates-in-Childrens-Toys-and-Child-Care-Products

[142] https://scs-public.s3-us-gov-west-1.amazonaws.com/env_production/oid100/did200002/pid_202268/assets/merged/zt81iic_document.pdf

Summary of comments

Commenter supports the numeric limit for the restriction section 111 (2).

Response

Thank you for your comment. For more information about the restriction in WAC 173-337-111 (2), see the response to comment 2.11.D.1.

Comment 2.11.D.3

Commenters

- Blackstock, Bill (Resilient Floor Covering Institute)

Summary of comments

Comment suggests the numeric limit for the restriction in section 111 (2) is too low.

Response

Thank you for your comment. The restriction in WAC 173-337-111 (2) of the adopted rule states that no person may manufacture, sell, or distribute a priority consumer product described in (a) of this subsection that contains more than 1,000 ppm of any ortho-phthalate, individually or combined.

We based this restriction on a similar restriction for children's toys and feedback from industry representatives. The U.S. Consumer Product Safety Commission[143] has a restriction of no more than 0.1% by weight (1,000 ppm) of certain phthalates in children's toys and childcare articles. Test methods and related standards referenced in the Resilient Floor Covering Institute comment letter[144] indicate that resilient flooring products cannot exceed 1,000 ppm for individual or total ortho-phthalates. For these reasons, we did not make the change requested.

2.12 Flame retardants in priority consumer products

Comment 2.12.A.1

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Harms, Luke (Whirlpool Corporation)
- Keane, John (Association of Home Appliance Manufacturers)
- Miller, Bob (Albemarle Corp.)
- Minggang, Zhao (People's Republic of China)

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[143] https://www.cpsc.gov/Newsroom/News-Releases/2018/CPSC-Prohibits-Certain-Phthalates-in-Childrens-Toys-and-Child-Care-Products

[144] https://scs-public.s3-us-gov-west-1.amazonaws.com/env_production/oid100/did200002/pid_202268/assets/merged/zt81iic_document.pdf

Summary of comments

Comment suggests section 112 (1) and (2) include a list of all products and parts applicable to the restriction and notification requirement.

Response

Thank you for your comment. Including a list of all products and parts applicable to the restriction and notification requirement would limit the applicability for this product category. Instead, we decided to specify the applicability for electric and electronic products with plastic external enclosures in section 112. WAC 173-337-112 (1)(a) and (2)(a) in the adopted chapter clarify the applicability for electric and electronic products with plastic external enclosures. We used feedback from stakeholders and other interested parties, especially industry representatives, to develop the applicability in section 112.

Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.12.A.2

Commenters

- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests the product category in section 112 (1) and (2) be changed to “EEE external enclosure.”

Response

Thank you for your comment. We did not change the name of the product category.

Comment 2.12.A.3

Commenters

- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests the restriction in section 112 (1) only apply to consumer electronics.

Response

Thank you for your comment. Chapter 70A.350 RCW[145] and Chapter 173-337 WAC apply to consumer products and both state “‘consumer product’ means any item, including any component parts and packaging, sold for residential or commercial use.” We did not change the rule in response to this comment.

[145] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350

Comment 2.12.A.4

Commenters

- Prero, Judah (Chemical Users Coalition)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests sections 112 (1) and (2) only apply to enclosures of televisions, displays, and stands.

Response

Thank you for your comment. The Washington State Legislature passed the Pollution Prevention for Healthy People and Puget Sound Act (Chapter 70A.350 RCW[146]) to make consumer products safer for people and the environment. The law gives us authority to restrict chemicals in products when safer alternatives exist.

We determined that there are safer, feasible, and available alternatives to using organohalogen flame retardants. In the Regulatory Determinations Report[147] to the Legislature, we concluded that safer flame retardants:

- Can be used in electric and electronic enclosures (for products intended for indoor use).
- Are marketed in promotional materials for use in electric and electronic enclosures (for products intended for indoor use).
- Are already used in electric and electronic enclosures (for products intended for indoor use) and are available on the market.

Throughout the development of the new chapter, we worked with stakeholders to develop clear, achievable requirements. We used feedback from stakeholders and other interested parties, especially industry representatives, to develop the applicability in section 112 in the adopted chapter. We did not change the rule in response to this comment.

Comment 2.12.A.5

Commenters

- Keane, John (Association of Home Appliance Manufacturers)

Summary of comments

Comment suggests section 112 (1) and (2) exempt appliances.

Response

Thank you for your comment. We did not exempt appliances from the requirements in section 112 of the adopted rule. For more information about the applicability in section

[146] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350&full=true
[147] https://apps.ecology.wa.gov/publications/summarypages/2204018.html

112, see the response to comment 2.12.A.4. We did not change the rule in response to this comment.

Comment 2.12.A.6

Commenters

- Harms, Luke (Whirlpool Corporation)
- Keane, John (Association of Home Appliance Manufacturers)

Summary of comments

Comment suggests section 112 (1) and (2) exempt polyvinyl chloride (PVC).

Response

Thank you for your comment. The Washington State Legislature identified organohalogen flame retardants as priority chemicals. In the Priority Consumer Products Report,[148] we explained that organohalogen flame retardants are persistent in the environment and associated with adverse health effects like carcinogenicity, mutagenicity, reproductive toxicity, developmental toxicity, and endocrine activity. We approach organohalogen flame retardants as a class because RCW 70A.350.010[149] defines them collectively as a priority chemical.

Another reason to regulate the chemical class is that substituting one organohalogen flame retardant for another grows the potential for exposure to both currently used organohalogen flame retardants and cumulative exposure to persistent legacy organohalogen flame retardants.

We determined that restricting organohalogen flame retardants in the two applicable priority consumer products would reduce a significant use of these chemicals, reduce the potential for human exposure, protect sensitive populations, and protect sensitive species. For these reasons, we did not exempt polyvinyl chloride from the requirements in section 112 of the adopted chapter.

Comment 2.12.A.7

Commenter

- Fox, Patrick (The International Bromine Council)

Summary of comment

Comment suggests section 112 (1) and (2) exempt battery-powered and cordless devices.

Response

Thank you for your comment. We did not exempt battery-powered and cordless devices from the requirements in section 112 of the adopted rule because we found battery

[148] https://apps.ecology.wa.gov/publications/summarypages/2004019.html
[149] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.350.010

powered cordless devices that use safer alternatives. For more information about the applicability in section 112, see the response to comment 2.12.A.4.

Comment 2.12.A.8

Commenters

- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests section 112 (1) and (2) exempt sensors, dimmers, and controllers.

Response

Thank you for your comment. Based on formal comments, we revised the applicability in section 112 (1) and (2) in the adopted chapter.

Comment 2.12.A.9

Commenters

- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests section 112 (1) and (2) exempt products that are not hard-wired but are necessary for the intended performance of the hard-wired products.

Response

Thank you for your comment. We did not exempt products that are not hard-wired but are necessary for the intended performance of the hard-wired products from the requirements in section 112 of the adopted rule. For more information about the applicability in section 112, see the response to comment 2.12.A.4.

Comment 2.12.A.10

Commenters

- Honma, Hiroki

Summary of comments

Comment suggests section 112 (1) and (2) exempt areas around heating elements and parts around power supply units that are subject to high temperatures.

Response

Thank you for your comment. We did not exempt areas around heating elements and parts around power supply units that are subject to high temperatures from the requirements in section 112 of the adopted rule. For more information about the applicability in section 112, see the response to comment 2.12.A.4.

Comment 2.12.A.11

Commenters

- Keane, John (Association of Home Appliance Manufacturers)

- Moyer, Daniel (Consumer Technology Association)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests section 112 (1) and (2) exempt products less than 25 grams.

Response

Thank you for your comment. We did not exempt products less than 25 grams from the requirements in section 112 of the adopted rule. The adopted chapter exempts "plastic external enclosure parts that weigh less than 0.5 grams" as stated in WAC 173-337-112 (1)(a)(iii)(C) and WAC 173-337-112 (2)(a)(iii)(C). For more information about the applicability in section 112, see the response to comment 2.12.A.4.

Comment 2.12.A.12

Commenters

- Tabor, Robert (Carrier Corporation)

Summary of comments

Comment suggests section 112 (1) and (2) exempt life safety systems and devices.

Response

Thank you for your comment. Based on formal comments, we revised the applicability in section 112 (1) and (2) in the adopted chapter.

Comment 2.12.A.13

Commenters

- Moyer, Daniel (Consumer Technology Association)

Summary of comments

Comment suggests language for section 112 (1) and (2) to clarify internal parts and finished products.

Response

Thank you for your comments. Based on formal comments, we revised the rule and added "finished" to the definition of "external enclosures," WAC 173-337-112 (1)(a)(iii)(B), and WAC 173-337-112 (2)(a)(iii)(B) in the adopted chapter.

Comment 2.12.A.14

Commenters

- Keane, John (Association of Home Appliance Manufacturers)

Summary of comments

Commenter asks if section 112 (1) and (2) apply to the rear side of an appliance.

Response

Thank you for your comment. We did not exempt the rear side of an appliance from the requirements in section 112 of the adopted rule. For more information about the applicability in section 112, see the response to comment 2.12.A.4.

Comment 2.12.B.1

Commenters

- Moyer, Daniel (Consumer Technology Association)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests section 112 (1) have the same compliance schedule for all priority consumer products in this section.

Response

Thank you for your comment. Section 112 (1)(b) includes three effective dates because this is a large product category that covers many products. We based the compliance dates on similar restrictions in New York and the European Union and feedback from industry representatives.

We established an earlier compliance date for televisions and electronic displays because New York and the European Union already restrict flame retardants in televisions and electronic displays.

We divided the rest of the applicable electric and electronic products into two categories: Group 1 and Group 2. Group 1 entities have more capital to invest in research and development, so they are better positioned to lead technological change. This allows Group 2 entities more time to adjust to meet the proposed restriction. We found about four percent of all sales are made for displays and TVs, and 25 percent of all electronics manufacturers had revenues exceeding one billion dollars. For these reasons, we did not make the change requested.

For more information, see the Final Regulatory Analyses[150] for the adopted chapter.

Comment 2.12.B.2

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)

Summary of comments

Comment suggests section 112 (1) should not define “Group” by revenue.

[150] https://apps.ecology.wa.gov/publications/summarypages/2304032.html

Response

Thank you for your comment. Section 112 (1)(b) includes three effective dates because this is a large product category that covers many products. We based the compliance dates on similar restrictions in New York and the European Union and feedback from industry representatives.

We established an earlier compliance date for televisions and electronic displays because New York and the European Union already restrict flame retardants in televisions and electronic displays.

We divided the rest of the applicable electric and electronic products into two categories: Group 1 and Group 2. Group 1 entities have more capital to invest in research and development, so they are better positioned to lead technological change. This allows Group 2 entities more time to adjust to meet the proposed restriction. We found about four percent of all sales are made for displays and TVs, and 25 percent of all electronics manufacturers had revenues exceeding one billion dollars. For these reasons, we did not make the change requested.

For more information, see the Final Regulatory Analyses[151] for the adopted chapter.

Comment 2.12.B.3

Commenters

- Peele, Cheri (Toxic-Free Future and Clean Production Action)

Summary of comments

Comment suggests section 112 (1)(b)(ii)(B), (iii)(A) and (B), and (iv)(A) and (B) replace “includes” with “including but not limited to.”

Response

Thank you for your comment. Ecology revised the rule to more clearly state that the compliance schedule applies to the following priority consumer products.

Comment 2.12.B.4

Commenters

- Gann, Ben (American Chemistry Council and North American Flame Retardant Alliance)
- Harms, Luke (Whirlpool Corporation)
- Keane, John (Association of Home Appliance Manufacturers)
- Moyer, Daniel (Consumer Technology Association)
- Prero, Judah (Chemical Users Coalition)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

[151] https://apps.ecology.wa.gov/publications/summarypages/2304032.html

Summary of comments

Comment suggests delaying the effective date of the restriction in section 112 (1).

Response

Thank you for your comment. Based on formal comments, we changed the Group 1 compliance date to January 1, 2027, and changed the Group 2 compliance date to January 1, 2028.

Comment 2.12.C.1

Commenters

- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests the chapter base the effective date of restrictions on the manufacturing date.

Response

Thank you for your comment. The adopted chapter includes requirements based on the manufacture date of the priority consumer product, including the effective date of restrictions. We did not change the rule in response to this comment.

Comment 2.12.C.2

Commenters

- Peele, Cheri (Toxic-Free Future and Clean Production Action)

Summary of comments

Comment suggests the numeric limit for the restriction in section 112 (1) is too high.

Response

Thank you for your comment. The restriction in WAC 173-337-112 (1) of the adopted chapter states that no person may manufacture, sell, or distribute a priority consumer product described in (a) of this subsection that contains intentionally added organohalogen flame retardants.

We based this restriction on similar restrictions in New York and the European Union. We also considered existing tools used within the industry. UL 746H[152] was developed to help manufacturers comply with the European Union ban[153] on "use" of organohalogen flame retardants in enclosures of electronic displays. Manufacturers can specify UL 746H to communicate across their supply chain that the plastics used for enclosures need to be halogen-free.

We also looked at concentration data for intentionally used organohalogen flame retardants and found they typically contain 2 to 25 percent. This concentration for

[152] https://www.shopulstandards.com/ProductDetail.aspx?UniqueKey=28773
[153] https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1576033291584&uri=CELEX:32019R2021

intentional use is much higher than the rebuttable concentration limit of one-tenth of one percent or 1,000 ppm. Concentrations of organohalogen flame retardants not intentionally added should be much lower than the rebuttable concentration limit.

Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.12.C.3

Commenters

- Moyer, Daniel (Consumer Technology Association)
- Prero, Judah (Chemical Users Coalition)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests the restriction in section 112 (1) use a numeric limit—such as 1,000 ppm—instead of "intentional use."

Response

Thank you for your comment. The restriction in WAC 173-337-112 (1) of the adopted chapter states that no person may manufacture, sell, or distribute a priority consumer product described in (a) of this subsection that contains intentionally added organohalogen flame retardants.

We based this restriction on similar restrictions in New York and the European Union. We also considered existing tools used within the industry. UL 746H[154] was developed to help manufacturers comply with the European Union ban[155] on "use" of organohalogen flame retardants in enclosures of electronic displays. Manufacturers can specify UL 746H to communicate across their supply chain that the plastics used for enclosures need to be halogen-free.

We also looked at concentration data for intentionally used organohalogen flame retardants and found they typically contain 2 to 25 percent. This concentration for intentional use is much higher than the rebuttable concentration limit of one-tenth of one percent or 1,000 ppm. Concentrations of organohalogen flame retardants not intentionally added should be much lower than the rebuttable concentration limit.

Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.12.D.1

Commenters

- Moyer, Daniel (Consumer Technology Association)

[154] https://www.shopulstandards.com/ProductDetail.aspx?UniqueKey=28773
[155] https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1576033291584&uri=CELEX:32019R2021

- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests section 112 (1) and (2) not include a rebuttable presumption that the detection of bromine, chlorine, or fluorine above certain concentrations indicates intentionally added organohalogen flame retardants.

Response

Thank you for your comment. The adopted chapter includes rebuttable presumptions to help Ecology determine compliance with the chapter and be transparent in how we make those determinations. To determine compliance, we will test a small subset of priority consumer products and if we detect the chemical listed (or at the specified concentration), we will contact the person required to comply. Then, that person may rebut the presumption by submitting a statement and including justification and supporting information. Or, instead of rebutting the presumption, they can work with us to get to compliance.

The rebuttable presumption is a tool used by Ecology and the regulated person to achieve compliance. Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.12.D.2

Commenters

- Moyer, Daniel (Consumer Technology Association)

Summary of comments

Comment suggests adding the term “homogeneous material” to the rebuttable presumption in section 112 (1) and (2).

Response

Thank you for your comments. Based on formal comments, we revised section 112 in the adopted chapter. WAC 173-337-112 (1)©(ii)(A) – (C), WAC 173-337-112 (2)(c)(i)(A) – (C), WAC 173-337-112 (3)(c)(ii)(A) – (D), and WAC 173-337-112 (4)(c)(ii)(A) – (D) now includes “in the homogeneous material.”

2.13 Alkylphenol ethoxylates in priority consumer products

Comment 2.13

Commenters

- Peele, Cheri (Toxic-Free Future and Clean Production Action)

Summary of comments

Comment suggests the restriction in section 113 is too high.

Response

Thank you for your comment. The restriction in WAC 173-337-113 (3) of the adopted chapter states that no person may manufacture, sell, or distribute a priority consumer product described in (1) of this section that contains more than 1,000 ppm of any alkylphenol ethoxylates, individually or combined.

We based this restriction on similar restriction in the European Union. The European Union[156] has a restriction of no more than one-tenth of one percent by weight (1,000 ppm) of nonylphenol and nonylphenol ethoxylates in domestic cleaning products and some industrial cleaning products (2009). Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

2.14 Bisphenols in priority consumer products

Comment 2.14.A

Commenters

- Swick, Derek (Can Manufacturers Institute)

Summary of comments

Comment suggests section 114 (1) and (2) not include a rebuttable presumption that the detection of a bisphenol, excluding TMBPF, indicates a bisphenol-based epoxy can liner.

Response

Thank you for your comment. The adopted chapter includes rebuttable presumptions to help us determine compliance with the chapter and be transparent in how we make those determinations. To determine compliance, we will test a small subset of priority consumer products and if we detect the chemical listed (or at the specified concentration), we will contact the person required to comply. Then, that person may rebut the presumption by submitting a statement and including justification and supporting information. Or, instead of rebutting the presumption, they can work with us to get to compliance.

The rebuttable presumption is a tool used by Ecology and the regulated person to achieve compliance. Because we think the rule is sufficiently clear and enforceable, we do not believe a change to the language as proposed is necessary.

Comment 2.14.B.1

Commenters

- Moyer, Daniel (Consumer Technology Association)
- Prero, Judah (Chemical Users Coalition)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

[156] https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:164:0007:0031:EN:PDF

Summary of comments

Comment suggests section 114 (3) exempt medical devices regulated by the U.S. Food and Drug Administration (FDA).

Response

Thank you for your comment. Based on formal comments, we revised section 114 in the adopted chapter. WAC 173-337-114 (3)(a)(ii) states, "This subsection does not apply to consumer products regulated by the FDA as medical devices."

Comment 2.14.B.2

Commenters

- Moyer, Daniel (Consumer Technology Association)
- Prero, Judah (Chemical Users Coalition)
- Yamamoto, Emi (The Japanese Electric and Electronic Industrial Associations)

Summary of comments

Comment suggests delaying the effective date of the restriction in section 114 (3).

Response

Thank you for your comment. Based on formal comments, we changed the compliance date to January 1, 2026.

Comment 2.14.B.3

Commenters

- Moyer, Daniel (Consumer Technology Association)
- Prero, Judah (Chemical Users Coalition)

Summary of comments

Comment suggests the restriction in section 114 (3) use "intentionally added" instead of the 200-ppm numeric limit.

Response

Thank you for your comment. Based on formal comments, we changed the 200 ppm numeric limit to "intentionally added" and included a rebuttable presumption.

We used stakeholder feedback and similar restrictions to develop the restriction in the adopted chapter. The European Union has a restriction[157] of no more than two-hundredths of one percent by weight (200 ppm) of BPA in receipts (2020) and Switzerland has a restriction[158] of no more than two-hundredths of one percent by weight (200 ppm) of BPA and BPS in receipts (2020).

[157] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R2235&from=EN
[158] https://www.fedlex.admin.ch/eli/cc/2005/478/en#lvl_d4e222/lvl_d4e223

We included the rebuttable presumption as a tool to use with the regulated person to achieve compliance. And we included a concentration of 200 ppm in the rebuttable presumption because that concentration is similar to concentrations of intentionally used bisphenols.

3.0 Form letters

We received many comment letters with identical or nearly identical content. Table 2 (above) lists the names of the people who submitted the following comments and the associated comment code.

Comments 3.0.A – 3.0.D expressed general concern that the proposed rule could increase fire risk. Because the comments were similar, we wrote one response for comments 3.0.A – 3.0.D.

Comment 3.0.A

Commenters

We received the following form letter from 140 commenters. Some comments included variations but all of them included some or all the content in the following summary of comments.

Comment from form letter

As a voice in my community, I have concerns about how this new policy proposal could impact families.

In 2021 alone, there were nearly 10,000 house fires in Washington. Moreover, in 2021 the U.S. Consumer Product Safety Commission recalled over 6.2 million units due to fire and shock hazards. This policy removes a key tool in helping slow the spread of flames: flame retardants.

These critical materials should not be removed from products. The proposal could make the products people use every day less safe, while also disrupting the supply chain in our state, potentially impacting product availability.

Please put Washington families first and not move forward with this policy proposal.

Comment 3.0.B

Commenters

We received the following form letter from 182 commenters. Some comments included variations but all of them included some or all the content in the following summary of comments.

Comment from form letter

As a Washington resident I am concerned with the policy proposal relating to electronic and electrical products.

In todays world, we rely on these products to do the simplest tasks get ready for work, get directions on where to go, communicate, wash our clothes, etc. But by limiting flame

retardants in these products, you could be unintentionally putting consumers at greater risk.

This policy is just too extreme. Not only could it lead to a greater risk of fire, but it also could limit the products available for sale in Washington. It could also result in decreased performance of our electronics.

Fire risk, product availability, and overall performance should be priorities. The negatives of this proposed policy are just too high.

Please reconsider this proposal. There has to be a better way to address your concerns.

Comment 3.0.C

Commenters

We received the following form letter from 181 commenters. Some comments included variations but all of them included some or all the content in the following summary of comments.

Comment from form letter

I am contacting you with deep concern about the policy proposal regarding consumer products.

This policy could decrease access to electronic and electrical products in the state of Washington. And it could lead to a decrease in performance for some electronics and home appliances.

But it's not just a matter of inconvenience. This is a matter of safety too. By removing flame retardants from electronics, you are potentially putting the products that Washington families use at greater risk of a fire. In 2021 alone, The U.S. Consumer Product Safety Commission recalled over 6.2 million units due to fire and shock hazards.

I urge the Department of Ecology to go consider other avenues to address their concerns. This policy is bad for our state.

Comment 3.0.D

Commenters

We received the following form letter from 168 commenters. Some comments included variations but all of them included some or all the content in the following summary of comments.

Comment from form letter

Im reaching out regarding the proposal under Safer Products for Washington related to the regulation of electronics and electrical equipment.

This policy is just wrong for Washington. It could upend everyday life as we know it:

Make it more challenging for product manufacturers to meet flammability requirements
Potentially decrease performance in electronic products

What Washingtonians need are policies that help keep us safe, not policies that could potentially increase safety risks to us.

Please consider altering this extreme proposal so it doesnt make compromise product safety and make everyday life harder.

Response for comments 3.0.A – 3.0.D

Thank you for your comment. The Washington State Legislature identified organohalogen flame retardants as priority chemicals and directed us to identify priority consumer products and determine the availability and feasibility of safer alternatives. Exposure to organohalogen flame retardants can lead to adverse health effects, including carcinogenicity, mutagenicity, reproductive and developmental toxicity, and endocrine activity.

We agree that fire safety is extremely important. Our goal was to identify alternatives that meet the same fire safety standards as priority chemicals. We do not view meeting fire safety and reducing chemical hazards as trade-offs—we can have both.

To better understand how to maintain fire safety and fire codes, we engaged with the Washington fire protection community. The information they shared supports the determination that flame retardants are not necessary in these products to meet flammability standards and that people use other approaches to meet fire safety requirements.

We focused on finding alternatives that could replace organohalogen flame retardants and still meet relevant fire safety standards. In the Regulatory Determinations Report submitted to the Legislature,[159] we identified safer alternative flame retardants that meet relevant product flammability standards.

Comment 3.0.E

Commenters

We received the following form letter from 198 commenters. Some comments included variations but all of them included some or all the content in the following summary of comments.

Comment from form letter

Dear Washington State Department of Ecology,

I am writing to support all of the proposed restrictions and reporting requirements in the proposed Safer Products for Washington rule. It is critical to end the use of dangerous chemicals in products that are building up in people, food, wildlife, and water.

There are safer solutions that can be used in place of hazardous chemicals and these rules are critically important for moving companies in the right direction.

I support the proposed rule as a critical next step in preventing pollution and protecting sensitive populations and species.

[159] https://apps.ecology.wa.gov/publications/summarypages/2204018.html

Response

Thank you for your comment. With the adoption of this rule, we are complying with the Pollution Prevention for Healthy People and Puget Sound Act (Chapter 70A.350 RCW[160]) to make consumer products safer for people and the environment. It marks a major milestone in how we prevent pollution from chemicals in everyday products and it's one of the strongest laws on toxic chemicals in the nation.

The adopted rule aims to reduce toxic chemicals in consumer products which could decrease toxic chemicals:

- Emitted to the air when waste is burned or from landfill fumes.
- Discharged to waters from wastewater treatment plants or as leachate from landfills.
- Released from the production, storage, or use of consumer products.

Many consumer products people use at home, work, or school contain toxic chemicals that can harm our health and contaminate the environment. Steady releases of chemicals from these products make up one of the largest sources of toxics entering Washington's environment. Toxic chemicals in consumer products can expose people:

- Directly from items such as personal care products, furniture, and household products.
- Indirectly from their environment—air you breathe, water you drink, and food you eat.

If we reduce the use of toxic chemicals in consumer products by using safer alternatives, we can reduce exposure across the product lifecycle—from manufacturing to recycling, reuse, or disposal. This results in less direct exposure, indirect exposure, and harm to wildlife and the environment.

For most chemicals used in consumer products, there is inadequate hazard or exposure information to understand the risks they pose to people and the environment. Yet epidemiological and environmental monitoring studies often find impacts from chemicals used in consumer products.

One way to prevent risks from chemicals in consumer products is to avoid the use of hazardous chemicals. This approach reduces risks across the lifecycle of the product by reducing exposures to toxic chemicals during the manufacturing, use, and disposal or reuse phases.

4.0 Miscellaneous

The following comments did not directly relate to the Safer Products rulemaking or the proposed rule.

[160] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350&full=true

Comment 4.0.A

Commenters

- Bailey, Amanda
- Fields, Mary
- Fitzpatrick, Kristin
- Giffin, Amy
- Hooper, Engrid
- Silverman, Stacya
- Zimmerman, Tambra

Summary of comments

Commenter supports 2023-24 House Bill 1047 – Concerning the use of toxic chemicals in cosmetic products.

Response

Thank you for your comment. House Bill 1047 is a separate effort from the Safer Products rulemaking and the proposed rule. But we appreciate you taking the time to submit a comment.

Comment 4.0.B

Commenters

- Mccarter, Larry
- McDade, Kirsten (RE Sources)

Summary of comments

Commenter suggests the law should not exempt land application of biosolids.

Response

Thank you for your comment. Chapter 70A.350 RCW[161] does not regulate biosolids. The Environmental Protection Agency (EPA) regulates biosolids under the Clean Water Act — the same law that regulates wastewater treatment plants. Ecology implements state rules with a permit program designed to meet federal requirements. Ecology's Solid Waste Management Program regulates biosolids in Washington. For more information, visit our Biosolids webpage.[162]

[161] https://app.leg.wa.gov/rcw/default.aspx?cite=70A.350
[162] https://ecology.wa.gov/Waste-Toxics/Reducing-recycling-waste/Biosolids

Comment 4.0.C

Commenters

- Rodgers, Darrell

Summary of comments

Commenter states they included an attachment with their submitted comment but the eComments database does not have an attachment for this submittal.

Response

Thank you for your comment. The eComments database does not have record of the attachment so we were unable to review the attachment.

Comment 4.0.D

Commenters

- Anonymous, Anonymous
- Tester, John

Summary of comments

Comments include random letters or the word “test” and appear to be accidental submittals or people testing the database.

Response

Thank you for your comment.

Appendices

This Concise Explanatory Statement Appendices document includes the citation list, written comments, verbal testimony provided, and the proposed rule with track changes. To view the Concise Explanatory Statement Appendices document, visit this publication's summary page[163] or our Safer Products Restrictions and Reporting webpage.[164]

The Concise Explanatory Statement Appendices document includes:

- Appendix A: Citation List.
- Appendix B: Written Comments.
- Appendix C: Hearing Testimonies.
- Appendix D: Proposed Rule with Edits.

[163] https://apps.ecology.wa.gov/publications/SummaryPages/2304033.html
[164] https://ecology.wa.gov/SPWArule