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February 3, 2023

Washington Department of Ecology
Hazardous Waste and Toxics Reduction Program
Safer Products for WA
PO BOX 47600
Olympia, WA 98504-7600

Re: Proposed Rule - Chapter 173-337 WAC - Safer Products Restrictions and Reporting

To Whom It May Concern:

The Chemical Users Coalition[1] ("CUC") appreciates the opportunity to provide our feedback on the Washington Department of Ecology ("Department")'s Proposed Rule implementing part of the Safer Products for Washington legislation. CUC is an association of companies from diverse industries that are interested in chemical management policy from the perspective of those who use, rather than manufacture, chemical substances. CUC encourages the development of chemical regulatory policies that protect human health and the environment while simultaneously fostering the pursuit of technological innovation. Aligning these goals is particularly important in the context of chemical management policy in a global economy.

CUC Members have been actively engaged on the Safer Products for Washington Program, including our comments submitted in response to prior actions taken by the Department in the development of the Proposed Rule, which we reiterate and incorporate by reference here.

CUC acknowledges the efforts of the Department to address comments that CUC previously submitted (enclosed), as well as those of many other stakeholders. CUC would

[1] The members of CUC are Airbus S.A.S., The Boeing Company, Carrier Corporation, HP Incorporated, IBM Company, Intel Corporation, Lockheed Martin Corporation, National Electrical Manufacturers Association, Raytheon Technologies Corporation, Sony Electronics Inc., and TDK U.S.A. Corporation.

like to note that we recognize that the definition of consumer products under RCW 70A.350.010 includes products sold for commercial use. The Proposed Rule imposes sweeping new restrictions of many products. Accordingly, CUC believes the Department should first focus regulatory efforts on personal, family, and household use products. Once those measures are in force, the Department can then determine if regulation of business uses is warranted.

In addition to this general comment, the CUC believes that there are still a number of areas that the Department should address to ensure that the regulation is clear and easily understood and will not unduly burden the regulated community. Our comments on specific provisions in the Proposed Rule follow.

WAC 173-337-015 Applicability

CUC believes that the Department should exclude manufacturers of products solely for research and development purposes; doing so could contribute to the further development of science and technology and enable research during the development of suitable substitutes for products that are subject to restrictions. Accordingly, the Department should include a provision that states that the chapter does not apply to priority consumer products that contain a priority chemical that is manufactured, sold, or distributed solely for research and development purposes.

Furthermore, CUC believes that it would be helpful if the regulations clarify that the statutory exemption for "finished products certified or regulated by the FAA or DOD … including parts, materials and processes" applies to the parts of such products even prior to the completion of the manufacture of the finished product. In the case of complex aerospace and defense equipment, manufacturing may take months to produce a "finished" product. Therefore, CUC suggests that the proposed regulations make clear that the exemption covers "products that, when finished, are subject to certification or regulation by the Federal Aviation Administration or the Department of Defense, or both." In addition, we suggest that the regulations clarify that when the statute says the exemption applies to parts, materials, and processes when used to manufacture or maintain "any regulated or certified products," it includes parts and materials used to repair such products as well.

CUC believes that the Department should exempt products or replacement parts manufactured from recycled materials which may contain priority chemicals but to which no new priority chemicals were added during the product or replacement part manufacture. Prohibiting products made from recycled materials could result in very high costs associated with testing and compliance assurance and would discourage recycling.

WAC 173-337-020 Requesting an Exemption

The Proposed Rule states that a person who submits a request for an exemption must comply with the requirements under the rule until the exemption is approved. The Proposed Rule does not provide for any timetable or deadlines by which the Department must act on a request for an exemption. Under the provision as proposed, the company requesting an exemption, as well as all downstream entities distributing that company's products, must temporarily stop all distribution until the exemption is approved, even if any delay in acting on an exemption request is due to the Department. To prevent such a significant supply chain disruption, CUC recommends that this provision be changed to allow for the continued sale of the product until the Department makes a final decision regarding the request for exemption. If the Department denies the exemption request, the Department will need to provide for adequate time for the manufacturer and downstream users to adjust for the restriction.

WAC 173-337-025 Definitions

- **Consumer Products:** The proposed definition for "Consumer Products" includes the packaging of the product. CUC believes that packaging should be excluded from the definition. The manufacturer of an item will be responsible for the compliance of the product with the regulations. The manufacturer of the packaging should be a separate responsible entity, and packaging should be regulated separately.
- **Electronic Display:** CUC believes that that the Department should align the definition of "electronic display" with that of similar laws, such as the EU's Ecodesign Directive (2009/125/EC) and New York's law regulating organohalogen flame retardants in electric enclosures (NY ECL 37-1001). The definition used in those contexts is *"a consumer product with a display screen and associated electronics that, as its primary function, displays visual information from wired or wireless sources and is available for purchase by individuals or households for personal use in a residential space. Electronic display shall not include: (a) any electronic display with a screen area smaller than or equal to one hundred square centimeters or fifteen and one-half square inches; (b) projectors; (c) virtual reality headsets; (d) all-in-one video conference systems; or (e) displays that are integrated with appliances and are not available for purchase as separate products by end-users."* The use of one consistent definition will make compliance simpler for industry and reduce potential confusion.

- **External Enclosures:** CUC believes the proposed definition unintentionally includes components that should be excluded, such as external cables and cords. The definition in the preliminary draft indicated that cables and cords were not included within the definition. However, the current definition, by referring to a "plastic external part," could include components such as cables and cords. CUC believes that the following language coveys the Department's true intent for this term: "External enclosures means the plastic enclosure and stands of electronic displays."
- **Inaccessible Electronic Component:** CUC believes that this definition should be modified to address reasonably foreseeable access to parts in a repair or commercial setting. Accordingly, CUC proposes that definition read "not capable of being removed from the product or being accessed during any reasonably foreseeable **consumer** use or abuse of the product."
- **Intended for Indoor/Outdoor Use:** Based on how the definitions are currently drafted, electronics products likely fall into both categories. Being that WAC 173-337-112(2)(a)(ii)(A) indicates that the provision for electronic products intended for outdoor use does not apply to products intended for indoor use, CUC believes that further clarification is needed to distinguish true outdoor use products. CUC suggests the following definition: "Intended for Outdoor Use" means a product designed to maintain functionality when used after outdoor exposure to ultraviolet (UV) light, water, or immersion when used outdoors for an extended time due to its primary use in the outdoors.
- **Intentionally Added Chemical:** CUC believes that substances used in manufacturing a product but not part of the product itself not be included within the scope of the law or regulations. Accordingly, CUC suggests that the definition be changed to "a chemical that serves an intended function in the final product or part of the product."
- **Organohalogen:** The definition is broad and unspecific, which may lead to compliance challenges. CUC believes that the Department should provide the CASRNs for the substances the Department intends to include.
- **PFAS:** The definition is broad and unspecific, which may lead to compliance challenges. CUC believes that the Department should provide the CASRNs for the substances the Department intends to include.

WAC 173-337-055 Previously Owned Priority Consumer Products

CUC appreciates the Department's proposal to exempt products manufactured before the start of restrictions. To implement such a requirement, the Department should consider adding a definition of "manufacture" to make clear when a product is considered to have been "manufactured" for purposes of qualifying for the exemption. For complex

equipment, such as aerospace and defense systems, there may be a long period between the onset of the manufacturing process and the completed product. Accordingly, CUC believes that any product or equipment for which the manufacturing process has begun as of the effective date of the regulations should be exempt. The CUC also recommends that the Department should establish that there will be no time limitations or similar restrictions placed on the continued "sell through" of any regulated product that was manufactured before a specified date.

Furthermore, CUC believes that the exemption of replacement parts for consumer products should apply regardless of the date of the replacement part's manufacture. This would allow for the continued service and repair of the finished goods, without having to unnecessarily dispose of regulated products before the end of their useful lives.

WAC 173-337-110 PFAS

CUC believes that the Department should allow for refurbishments of products manufactured before the effective date regardless of whether the repair/replacement parts themselves are manufactured before or after the effective date.

CUC believes that presumption of PFAS content based on the detection of total fluorine should be removed. To date, there are few standardized and verified tests that can be used in all matrices to accurately detect PFAS. Furthermore, there aren't any standardized test methods for PFAS that can be used for complex articles. Should the Department proceed with testing for total fluorine, the likelihood is that such testing will generate false positives. This would cause a waste of resources for both the state and the regulated community.

WAC 173-337-112 Flame Retardants

As mentioned before, the scope of the Proposed Rule differs from New York's and the EU's restrictions on flame retardants in electronics casing. CUC asks that the Department harmonize the scope of the restriction with that of the existing regulatory structures to ease compliance and reduce confusion.

CUC believes that the Department should allow for refurbishment of products manufactured before the effective date regardless of whether the repair/replacement parts themselves are manufactured before or after the effective date.

CUC requests that the exemption list be expanded to include "sensors, dimmers and controllers" in the list of exempt parts, so that the complete list would read: "(E)

Wires, cords, cables, switches, **sensors, dimmers, controllers**, light bulbs, and connectors." There are battery-powered and plug-in devices that function in a similar critical nature as switches but provide other automatic functions required by the system, primarily in commercial buildings. These functions include dimming, occupancy sensing, daylight sensing, water presence sensing, and countless other performance-related characteristics to help with energy savings and occupant safety. In addition, systems often require special-purpose distributed controllers for proper functioning.

Networked control systems for building operation often require supporting devices that are battery powered or 120V plug-in due to practical concerns. The same devices would be exempted if they were hard-wired, but hard-wired devices may add cost to the product as well as cost and complexity related to the installation of additional electrical infrastructure. CUC therefore requests that the exemption relating to hard-wired products be changed to read as follows: "(B) Consumer products that receive power only when they are hard-wired into and permanently part of the fixed electrical wiring of a building, **or products that are not hard-wired but are necessary for the intended performance of the hard-wired products**. This includes wiring devices, control devices, electrical distribution equipment, and lighting equipment."

Both REACH and ROHS 2 used a 48-month compliance timeframe. CUC requests that 48 months be the minimum compliance timeframe for electronics with plastic enclosures.

WAC 173-337-060(2)(a)(i) provides that reports must be submitted by January 31 of the year after the effective date of the reporting requirement. The reporting requirement for electronics for outdoor use is January 1, 2024. CUC requests clarification from the Department as to the initial reporting deadline: is the initial reporting deadline January 31, 2024, or January 31, 2025?

The Department should exclude plastic casings manufactured from recycled plastic which may contain organohalogen flame retardants but to which no new organohalogen flame retardant was added during the component [casing] manufacture. Prohibiting products with recycled plastic could result in very high costs associated with testing and compliance assurance and would discourage plastic recycling.

WAC 173-337-114 Bisphenols

Bisphenols may be present as impurities in thermal films. Thermal films used in the medical industry are typically handled in files and in sleeves and should not be in frequent contact with people. Should medical application of thermal films be restricted

due to bisphenol presence, it may take approximately five years to identify alternative materials to create new thermal films. This is because the material used is necessary in the gradation expression of the film.

To address these concerns, CUC believes that the 200-ppm limit be replaced with a prohibition on "intentionally added" bisphenols. Another alternative is that the Department can exempt such medical uses similar to the way Food and Drug Administration-regulated medical devices are exempt from the regulations for organohalogen flame retardants.

Conclusion

CUC appreciates the Department's consideration of these, as well as our previously submitted, comments. CUC looks forward to additional opportunities during the regulatory process to discuss the concerns mentioned both in this letter and in our prior submission. If you have questions or need clarification of any matter in either of CUC's submissions, please feel free to contact me.

Sincerely,

Judah Prero

Enclosure

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August 31, 2022

Washington Department of Ecology
300 Desmond Drive SE
Lacey, Washington 98503

Re: Preliminary Draft Rule Language: Safer Products for Washington

To Whom It May Concern:

The Chemical Users Coalition ("CUC") appreciates the opportunity to provide our feedback on the Washington Department of Ecology's ("Department") Preliminary Draft Rule implementing part of the Safer Products for Washington legislation. CUC is an association of companies from diverse industries that are interested in chemical management policy from the perspective of those who use, rather than manufacture, chemical substances. CUC encourages the development of chemical regulatory policies that protect human health and the environment while simultaneously fostering the pursuit of technological innovation. Aligning these goals is particularly important in the context of chemical management policy in a global economy.

CUC acknowledges the efforts of the Department to address comments that CUC previously submitted (enclosed), as well as those of many other stakeholders. We look forward to further interactions with the Department when the proposal is issued more formally later this year. In the meantime, CUC would like to note that there are still a number of areas that we believe the Department should address to ensure that the regulation, when proposed, is clear, easily understood, and will not unduly burden the regulated community.

- Although CUC recognizes that the definition of consumer products under RCW 70A.350.010 includes products sold for commercial use, CUC believes the Department should first focus regulatory efforts on personal, family, and household use products. Once those measures are in force, the Department can then determine if regulation of business uses is warranted.

- CUC appreciates the Department's proposal to exempt products manufactured before the start of restrictions. To implement such a requirement, the Department should consider adding a definition of "manufacture" to make clear when a product is considered to have been "manufactured" for purposes of qualifying for the exemption. For complex equipment, such as aerospace and defense systems, there may be a long period between the onset of the

manufacturing process and the completed product. Accordingly, CUC believes that any product or equipment for which the manufacturing process has begun as of the effective date of the regulations should be exempt. The proposed rule should also establish that there will be no time limitations or similar restrictions placed on the continued "sell through" of any regulated product that was manufactured before a specified date. Furthermore, CUC believes that the exemption of replacement parts for consumer products should apply regardless of the date of the replacement part's manufacture. This would allow for the continued service and repair of the finished goods, without having to unnecessarily dispose of regulated products before the end of their useful lives.

- CUC believes that the current definitions of "indoor" and "outdoor" use are not sufficiently specific, and most consumer electronics would fall under the category of "indoor use." CUC suggests that the term "intended for indoor use," be revised to "intended ONLY for indoor use." The Department also should provide examples of products that are considered for "indoor" and "outdoor" use.

- CUC believes that refurbished and repaired products should be explicitly exempt from the restrictions. Furthermore, CUC believes that previously-owned products also should be exempt from the regulations, as has been provided in recently-issued federal regulations, 40 CFR 751.401(b)(1). Based on the current draft, it appears that previously-owned priority consumer products (that contain restricted priority chemicals) would be within the scope of the restrictions. However, such a restriction would prohibit restricted products that were previously owned from being sold by charitable institutions or at "yard sales." Previously-owned products should be exempt as well as products that were manufactured prior to the restriction dates. Thus, CUC requests the Department clarify its intent with regard to previously-owned priority consumer products in the proposed rule.

- CUC believes that it would be helpful if the regulations clarify that the statutory exemption for "finished products certified or regulated by the FAA or DOD…including parts, materials and processes" applies to the parts of such products even prior to the completion of the manufacture of the finished product. In the case of complex aerospace and defense equipment, manufacturing may take months to produce a "finished" product. Therefore, CUC suggests that the proposed regulations make clear that the exemption covers "products that, when finished, are subject to certification or regulation by the Federal Aviation Administration or the Department of Defense, or

both...". In addition, we suggest that the regulations clarify that when the statute says the exemption applies to parts, materials, and processes when used to manufacture or maintain "any regulated or certified products," it includes parts and materials used to *repair* such products as well.

- CUC believes that the Department should provide manufacturers with an exemption for research and development purposes; doing so could contribute to the further development of science and technology and enable research during the development of suitable substitutes for products that are subject to restrictions.

- CUC recommends that the Department define "electronic displays" in a manner consistent with the European Union's EcoDesign regulation[1] and New York's OFR law[2] to promote harmonization and to avoid a patchwork of laws.

- CUC believes that the Department should differentiate between individual flame retardants by identifying the substances within scope using specific chemical names/CAS numbers, and gradually impose any needed restrictions on that basis, as opposed to regulating all OFRs simultaneously as an ill-defined category.

- Likewise, CUC believes that the Department should differentiate between individual PFAS by specifically identifying the substances within scope by their chemical names/CAS number, and gradually impose any needed restrictions as opposed to regulating all PFAS as a broad category simultaneously.

- CUC appreciates the Department incorporating provisions that allow manufacturers to request exemptions. However, further clarity will be needed to understand how the process would work. For example, once an exemption request has been submitted, can the manufacturer continue selling those products until the Department decides whether to grant/reject the exemption? When should manufacturers submit requests for exemptions?

CUC appreciates your consideration of these, as well as our previously submitted, comments. CUC looks forward to additional opportunities during the regulatory process to discuss the concerns mentioned both in this letter and those in our prior submission. If

[1] COMMISSION REGULATION (EU) 2019/2021 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02019R2021-20210501

[2] NY ECL 37-1001(4)

you have questions or need clarification on any matter in either of CUC's submissions, please feel free to contact me.

Sincerely,

Lawrence E. Culleen

Enclosure

Before the Washington State Department of Ecology
Safer Products for Washington
Draft Report to the Legislature on Regulatory Determinations:

Comments of the Chemical Users Coalition

Chemical Users Coalition ("CUC") [1] appreciates the opportunity to provide these comments regarding the Washington State Department of Ecology's ("DOE") recent report, which contained a variety of regulatory recommendations including to restrict the use of organohalogen flame retardants ("OFRs") in plastic device casings for electronic and electrical equipment. CUC's comments focus primarily on DOE's proposed OFR restrictions.

CUC is an association of companies from diverse industries that typically acquire and use, rather than manufacture or import, chemical substances. Our members depend on the availability of certain existing substances for which there are not technically feasible substitutes, and our members depend on a reliable pipeline for innovative new chemistries to be able to thrive in a competitive, global economy. Thus, CUC supports measures that foster product safety and protect health and the environment in a manner that enables the regulated community to pursue technological innovation simultaneously with economic development in the United States. This is critical in the area of chemical regulatory policy, which necessarily addresses emerging information about health and environmental risk.

Background

The Washington Legislature enacted the Pollution Prevention for Healthy People and Puget Sound Act (Chapter 70A.350 RCW) in 2019. The Act directs DOE to implement a program to reduce priority chemicals in consumer products, including all OFRs and several other flame retardants, as classified in Washington's Children's Safe Products Act. DOE's regulatory program to implement the 2019 law is called "Safer Products for Washington." As part of this program, DOE is evaluating whether to restrict the use of OFRs in electronic and electrical equipment. In its report sent to the Legislature in July 2020, DOE identified the use of OFRs in "plastic device casings" for electronic and electrical equipment as one of 11 priority product categories.

The Department published its Draft Regulatory Determinations Report to the Legislature on November 17, 2021, and is accepting stakeholder comments until January 28, 2022. In this report, DOE is proposing restrictions on OFRs in device casings for electrical and electronic equipment. The proposed restrictions would apply to numerous consumer/professional electronic and household items, including but not limited to televisions, laptops, mobile phones, and various appliances.

[1] CUC's Members include Airbus S.A.S., The Boeing Company, Carrier Corporation, HP Incorporated, IBM Company, Intel Corporation, Lockheed Martin Corporation, Raytheon Technologies Corporation, Sony Electronics, Inc., and TDK U.S.A. Corporation.

CUC members assemble, manufacture, and distribute exceptionally complex products, including those used in a variety of essential sectors of the US economy, such as the aerospace and defense industries; medical, commercial, and industrial equipment; vehicles and other forms of transportation; consumer appliances; and electronics and their components. Electronic products (which can include critical components in items used in each of the previously-mentioned commercial sectors) are unique in many respects because they may have a potential ignition source that can be generated by the essential components of the product – circuit boards, transformers, batteries, connectors, and many other such parts. Consequently, the use of flame retardants in the manufacture of electronics is essential to society, as one of the most important benefits of flame retardants in product design is that they can stop small ignition incidents from becoming larger fire events. Because manufacturers, such as CUC members, serve the industrial, defense, aerospace, automotive, and consumer sectors, they must balance increased demand for smaller, lighter, and more powerful electronics, while still ensuring that those devices and their component parts meet safety and technical performance standards, which can range from military specifications to UL certification requirements such as achieving a V-0 rating under UL 94.[2] Such manufacturers use plastics in enclosures to help meet performance goals, including protection from fire and shock risk. If left untreated, most plastics can be flammable, so flame retardants can provide an important layer of fire safety.

Unfortunately, the approach to regulation adopted by DOE in its report raises many serious issues and will have a drastic effect on the ability of electronics manufacturers to continue developing and selling the consumer products that are vital to today's society. Furthermore, the methodology employed in the report runs counter to accepted science and uses a vastly oversimplified approach to evaluating feasibility and availability of alternatives. Accordingly, CUC must disagree with the conclusions and recommendations of the report and encourage DOE to rescind the current recommendations, pending further analysis and input from the regulated community. Should DOE decide to proceed with the current recommendations, CUC strongly encourages DOE to consider the exemptions and clarifications discussed later in these comments. We would welcome the opportunity to work through the issues with DOE so that a final proposal can meet the goals of the Safer Products program while still ensuring product availability, safety, and performance.

The single class approach is not supported by science and should not be utilized

In the report, DOE states that it defines OFRs "as meeting both of the following criteria:

1. The chemical is used with the intended function of slowing ignition and progression of fires.
2. The chemical contains one or more halogen elements bonded to carbon."

This simplistic definition fails to acknowledge differences between the numerous substances that fall within the description. In 2015, the U.S. Consumer Product Safety Commission (CPSC or Commission) received a request from a number of organizations to promulgate a rule

[2] UL-94 is the Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances. To attain the UL 94 V-0 standard, samples must have met the following criteria: Burning combustion is not sustained for more than 10 seconds after applying controlled flame.

under the Federal Hazardous Substances Act (FHSA) prohibiting children's products, upholstered furniture, mattresses/mattress pads, and casings surrounding electronics containing nonpolymeric, additive OFRs. CPSC staff, in recommending that the request be denied, stated that

> OFRs … represent a broad class of chemicals defined largely by their functional use and the presence of a halogen, such as a bromine or chlorine. The limited data on OFRs show varying toxicity and exposure potential among individual OFR compounds. These varying properties of individual OFR compounds indicate that OFRs, in fact, represent several subclasses of chemicals that should be examined separately. . . Due to the varying toxicological properties… staff believes that insufficient data exist to assess OFRs as a class under the FHSA, and one cannot conclude that they all would be considered "hazardous substances."[3]

Despite this recommendation, the CPSC voted to grant the request. This action required the CPSC staff to proceed with the hazard assessment of the whole chemical class. Because of the inherent complexities of an assessment of this chemical class, CPSC asked the National Academies of Sciences, Engineering, and Medicine (NASEM) to develop a scoping plan to conduct the hazard assessment for OFRs as a chemical class. As a result of the request, NASEM convened the Committee to Develop a Scoping Plan to Assess the Hazards of Organohalogen Flame Retardants.

NASEM, in its 2019 report,[4] concluded that the OFRs cannot be treated as a single class for the purposes of a CPSC hazard assessment. The report noted that OFRs can, however, be divided into subclasses based on chemical structure, physicochemical properties, and predicted biologic activity. The committee identified 14 subclasses that can be used to conduct a subclass-based hazard assessment. The CPSC is currently using this subclass approach for the ongoing hazard assessment.

DOE, however, has proposed to adopt the OFR definition that has been rejected by both CPSC staff and NASEM—an approach that focuses primarily on chemical function (suppressing combustion and increasing the probability of escape from fire)—rather than on any specific toxicity characteristic or chemical feature, other than presence of a halogen. As CPSC and NASEM found, it is not scientifically accurate or appropriate to treat all organohalogen flame retardants the same. DOE's approach is simply not founded on the best available science.

Furthermore, banning the use of all OFRs in the applications DOE proposes will have significant consequences for product availability. Manufacturers of the affected products will first need significant time to work with all the entities in the supply chain, which may include thousands of upstream entities, to ascertain if OFRs are used. Since many OFRs are not currently restricted or regulated for such a wide range of products, the task of determining which products are affected by a ban will be painstaking and substantial, requiring significant time and resources. Unless the scope of affected substances is limited or significant lead time is given prior to regulations taking affect, manufacturers will be compelled to simply not supply affected electronic products to the

[3] United States Consumer Product Safety Commission, Staff Briefing Package in Response to Petition HP15-1, Requesting Rulemaking on Certain products Containing Organohalogen Flame Retardants, May 24, 2017

[4] The National Academies of Sciences, Engineering, and Medicine 2019. *A Class Approach to Hazard Assessment of Organohalogen Flame Retardants*.

State of Washington. Furthermore, downstream users of components containing OFRs, including the aerospace and defense industry, could see significant supply chain disruptions and other matters related to product obsolescence. This is, of course, not feasible given the nation-wide nature of retail distribution channels for commercial and consumer electronics.

As noted, many OFRs are not restricted or regulated for all consumer and commercial electrical and electronic equipment. If DOE proceeds with banning all OFRs in all electronics casings, it will be adopting an approach that is not in use anywhere else: such a sweeping ban goes beyond any actions that have been taken in the United States, either federally or at the state level, nor have any comparable standards been implemented internationally. Global harmonization of regulations allows industry to function well and ensures the widest range of products are available to the widest possible population. DOE's proposed approach is simply without precedent, from both a scientific and regulatory perspective, and the disruption it may cause to the supply chain would be significant.

These concerns are not simply hypothetical. Throughout 2021, the United States Environmental Protection Agency (EPA) needed to address consequences of the ban of PIP (3:1) that EPA imposed at the beginning of the year. It quickly became clear to EPA that restricting this one chemical, which was used in countless imported electronics products, was no simple task, and the impact the ban had on industry was extremely disruptive. Consequently, EPA is still exploring the best path forward for full implementation of the ban of PIP (3:1). Now, DOE is proposing to ban an exponentially larger number of substances. DOE should take note of EPA's experience and consider how to tailor its regulatory determination to avoid unnecessary disruptions.

DOE must look at risk - not simply hazard properties

DOE's report only focuses on hazard characteristics of a few OFRs. DOE's recommendation to ban all OFRs is based on alleged hazard properties of a few substances. DOE never did any analysis to determine whether the actual use of any OFR in casings poses a risk. As discussed, the proposed ban will have significant consequences on those industries that employ electronics casings, yet DOE did not perform a basic study to see if OFRs in casings even present a risk to human health or the environment. A regulator, when proposing such a wide-scale regulation of products, should make a compelling case that such regulation is truly necessary. Such demonstration is absent from DOE's report.

DOE confined the analysis it did perform to the hazard characteristics of some OFRs. DOE did not do any study to determine the hazard that could be posed by the elimination of OFRs--namely, increased flammability risk. Because of these analytical failures, it is possible that not only will the ban have no positive effect on human health or the environment, but it may even result in an increased hazard risk, due to the increased flammability of electronics products and the injury, death, and destruction that could result from a fire.

DOE's evaluation for alternatives and feasibility was simplistic

To properly assess the impact of a proposed regulatory action, DOE needed to assess whether alternative substances are available to replace those being banned, and whether use of the

identified alternatives is feasible. Unfortunately, DOE's analysis was simplistic and failed to consider numerous factors.

First, the evaluation of the availability, feasibility, and equivalency of potential alternatives cannot be based solely on product marketing and sources lacking product-specific expertise. Product manufacturers operate in a complex, global regulatory environment. They are required to consider a broad range of product safety and design factors. While a substance, perhaps, could technically be replaced by another, that simple switch does not mean that the product will necessarily meet regulatory product safety requirements across the globe. Additionally, it does not mean that the product will necessarily function in the same manner as it did previously.

Furthermore, the simple availability of alternatives does not mean that the substitution is a simple process. As CUC advised EPA in the context PIP 3:1 rule[5], it could take at least five months to ascertain whether the alternative meets internal quality standards, followed by up to two years to obtain the required safety and quality certifications for components, and almost three years for finished products. Once all such approvals have been secured, the new substance needs to be integrated into the manufacturing process, which itself could take up to an additional year. The resulting disruption from a requirement that bans a significant and sizable class of substances is difficult to quantify.

There are additional considerations that DOE has failed to address. When identifying alternatives and determining feasibility, DOE should consider the environmental effects of the substitution, including the impacts on circularity and the effects on disposal/recycling of the end use product. Sustainability issues such as energy efficiency, durability, and light-weighting also merit consideration. Some of the alternatives identified by DOE are already restricted or are in the process of being studied by regulators. If DOE believes feasible alternatives exist, an analysis of the safety and continued availability of these alternatives is needed.

Any proposal to regulate should only come after DOE has fully vetted the important socio-economic considerations required under the Safer Products for Washington law and general Washington rulemaking requirements

In developing any regulations for priority products, DOE must conduct the relevant socio-economic analyses. These include:

- A cost-benefit analysis of the proposed regulation
- An analysis regarding whether proposed regulation implements the "least burdensome alternative"
- A small business economic impact statement

While these requirements ultimately will apply to the final rulemaking phase, it is critical that these factors be considered at this stage to guide effective policy recommendations and to permit the necessary discourse with the affected industries before

[5] See http://www.chemicaluserscoalition.org/ckfinder/userfiles/files/CUC%20-%20PIP%20deadline%20extension%20proposal%20122221%20(as%20submitted)_(US_170972002_1).PDF

unwarranted, or ill-advised, regulatory actions are taken in final form. DOE's proposal to move ahead with unprecedented regulation needs to be fully informed by these analyses.

Concerns About the Definition of PFAS

Although CUC members do not manufacture the priority products that would be restricted under DOE's proposals for products containing PFAS, CUC believes that the definition of PFAS being used by DOE should be one that is both scientifically relevant and consistent with the goals of the Safer Products program. DOE, in its recommendations, is using the definition contained in the Revised Code of Washington. Specifically, RCW 70A.350.01022 defines perfluoroalkyl and polyfluoroalkyl substances as a class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom. This definition is extremely broad and captures many substances not generally considered to be PFAS. For example, this definition would capture hydrofluoroolefins (HFOs) which are gases or volatile liquids, and when released ultimately break down into naturally-occurring substances, that do not bioaccumulate in the environment and are not mobile in soil and water, in a matter of days. Similarly, fluoropolymers differ from significantly PFOA and PFOS in their molecular weight, toxicity, and their insolubility in water. The OECD has noted that, "*the term 'PFASs' does not inform whether a compound is harmful or not, but only communicates that the compounds under this term share the same trait for having a fully fluorinated methyl or methylene carbon moiety*."[6]

CUC is concerned that the use of an overly broad definition of PFAS for regulation could lead to several unintended and unnecessary consequences,[7] including the eventual restriction by DOE of substances with critical uses that do not pose a risk to public health or the environment. There is also a concern that replacement ingredients for restricted PFAS would perform less effectively or be unable to provide a similar level of functionality. CUC recommends that DOE focus those PFAS that are likely to pose specific concerns to human health or the environment when part of the subject priority products as used in the state.

Specific Recommendations

In light of the issues raised above, CUC believes the following need to be incorporated into any regulatory proposal. Specifically, DOE should:

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[6] Reconciling Terminology of the Universe of Per- and Polyfluoroalkyl Substances: Recommendations and Practical Guidance, Section 3.2. Practical guidance on how to identify and use suitable PFAS terms, https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ENV/CBC/MONO(2021)25&docLanguage=en

[7] See Comments of the CUC on TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances, http://www.chemicaluserscoalition.org/ckfinder/userfiles/files/TSCA%20Section%208(a)(7)%20Proposed%20PFAS%20Rule%20(092721).pdf

- Differentiate between individual flame retardants with chemical/CAS number specificity.
- Perform a new review for safety that includes flammability risks posed by elimination of OFRs from products.
- Perform a new review for "alternatives" that includes technical feasibility in meeting industry safety and performance standards.
- Regulate only based on actual risk (*i.e.*, a showing of release of the substance from the casing in such quantity that a risk to human health or the environment is present).
- Establish *de minimis* or allowable quantity (*i.e.*, concentration) thresholds for restricted OFRs and the products that contain them.
- Provide ample lead time so that restricted substance use can be identified, and products can then be reengineered or redesigned without threat of non-compliance or unavailability of products.
- Allow for sell-through of existing products, both those in the marketplace and warehoused, and for use of OFRs in spare/replacement parts.
- Clarify that the proposed restrictions are to apply solely to consumer electronics.
- Clarify the scope of "inaccessible components."
- Provide an exemption for repair and replacement parts/products, and well as an exemption for products used for research and development purposes.
- Provide guidance as to how electronics components that are used in both consumer and industrial, commercial, defense or aerospace applications will be treated.
- Ensure that its regulatory proposal aligns with other jurisdictions that currently regulate the use of OFRs for specific applications (*e.g.*, EU's Ecodesign Directive, which regulates the use of OFRs in the enclosures and stands of electronic displays).
- Clarify that products certified or regulated by the Federal Aviation Administration and Department of Defense to meet airworthiness requirements and products that are used or manufactured in a manner that is certified or regulated by those agencies are exempt pursuant to RCW 70A.350.030(5)(a)(v).
- Employ a definition of "PFAS" that appropriately focuses on the substances that are of true concern.

In closing, CUC members appreciate the opportunity to provide input on this important proposal. CUC members would be pleased to meet with DOE personnel to discuss these comments and related issues as they move forward with the process under the Safer Products for Washington program.