To: Senate Committee on Health & Welfare
From: Lauren Hierl, Executive Director, Vermont Conservation Voters
Re: Testimony in support of S.20 to protect Vermonters from toxic PFAS chemicals
Date: March 11, 2021

Thank you for the opportunity to testify today in **strong support of S.20, a bill that aims to reduce the amount of toxic PFAS "forever chemicals" we are bringing into Vermont, which contaminate our environment and harm our people.**

For the record, my name is Lauren Hierl, I'm executive director of Vermont Conservation Voters, or VCV. For those of you not familiar with VCV, we are a non-partisan, non-profit organization that advocates for strong environmental laws and supports pro-environment candidates.

VCV produces an annual Vermont Environmental Common Agenda to highlight the environmental community's top legislative priorities each year. S.20 was identified as one of our top priorities for this year.

The COVID-19 pandemic has brought to the forefront the importance of **public health**. It has also highlighted numerous systemic issues that exacerbate health inequities including toxic chemicals which make us more vulnerable to negative health outcomes. The manufacture and disposal of toxic chemicals also have a long history of **environmental injustice**, with facilities, landfills, and incinerators often located in communities of color and low-income communities.

S.20 continues the important work you all have been doing for many years on this important public health issue.

Failure of Federal Government to Regulate Toxic Chemicals

The reason Vermont needs to be engaged in chemical regulations is that **we have a federal chemical regulatory system that is fundamentally broken**. The primary underlying law, the Toxic Substances Control Act, or TSCA, was built on the premise that chemicals are presumed innocent until proven guilty. Unlike pharmaceuticals where a company needs to demonstrate safety before a product goes on the market, for industrial chemicals, we let them onto the market, and it's only after harm to human health and the environment becomes evident and the scientific case piles up that the federal Environmental Protection Agency (EPA) can step in and start taking action. When TSCA was enacted 60,000+ chemicals were grandfathered in and faced no assessments or regulation - including some of these PFAS chemicals. **Only 5 chemicals have ever been banned under TSCA**. That bill was updated in 2016, but with significant compromises to appease the chemical industry, and the implementation has been rocky to date.

Failures with FDA Regulations

Food packaging is regulated by the federal Food and Drug Administration. Under this program, the manufacturer must submit information about a particular chemical, including a safety determination, after which the FDA has 120 days to review the material and respond. If there is no response, the company may start using the chemical, even if the FDA has not completed its review. In addition, **the program defines safety as "reasonable certainty of no harm in the minds of competent scientists**." **It does not state threshold levels for carcinogenicity or reproductive toxicity**. **It does not require studies looking at organ damage, bioaccumulation, persistence, endocrine disruption or a number of other health effects other than carcinogenicity or reproductive toxicity.** Finally, the entire process is closed to the public. There is no public review and comment period and the studies submitted to the FDA are not public. All of the studies are produced by chemical manufacturers who have a vested interest in FDA approval and they can select what to submit and what to hold back. **The entire program is riddled with potential for abuse due to conflicts of interest.** When food packaging manufacturers state that they follow all regulations, that may be true, but the regulations themselves are fundamentally inadequate at protecting public health.

Moreover, the **FDA has a long history of taking no action on harmful chemicals** until individuals, organizations, states or market pressure forces them off the market. For example, FDA had evidence of harm of two PFAS chemicals (PFOA and PFOS) for years and did nothing. It was only after industry stopped manufacturing PFOA and PFOS after mounting public pressure did FDA finally enter into agreements with manufacturers to stop the use of these two chemicals.

Additionally, three separate petitions have been filed to eliminate the use of all phthalates from use in food packaging but thus far, FDA has taken no action. FDA also dragged its feet when it came to bisphenol-A. Only after states had banned BPA from baby bottles forcing a market transformation did the FDA finally take action - and the action was prompted by a chemical industry petition, not by FDA itself.

States Taking the Lead

Because of the federal government's failures, states have been taking the lead on regulating PFAS. **Vermont has continually stepped up to be a leader in better protecting our residents** from unnecessary exposure to toxic chemicals. I've had the pleasure of working with this committee in the past on bills that restrict the use of toxic flame retardant chemicals, phthalates, lead, mercury, and BPA from children's products and certain other consumer products.

I wanted to note that we've heard virtually identical testimony on each of these bills - arguments that the chemicals are safe, the industry is already well-regulated, and it will be overly burdensome for a small state like Vermont to implement these kinds of restrictions. Nonetheless, a wide range of

bills to restrict toxic chemicals have been successfully implemented here, without any examples brought forward of actual harm to our local industries or retailers, and we have great professionals in the Administration who know how to effectively implement these types of laws. The state's work has better protected our residents and workers, and helped drive national shifts away from these harmful chemicals.

In this case, we're not out front, we're actually playing catch-up.

While Vermont has been a longtime leader on toxic chemical issues, S.20 is primarily building on work already underway in other states. Washington state banned the use of PFAS in food packaging and in firefighting foam. In 2019, Colorado, New Hampshire and New York banned the use of PFAS in firefighting foam and California followed in 2020. Maine banned the use of PFAS in food packaging, along with phthalates. Maine's law also allowed their state agency to add other classes of chemicals to the list of banned substances from packaging while Washington adopted a Safer Products law allowing their environmental agency to regulate PFAS and other classes of chemicals in products and packaging.

In 2020, California also banned PFAS from cosmetics while New York banned its use in food packaging and also banned the incineration of PFAS. Washington has identified PFAS in carpets, rug, leather and textile furnishings, and aftermarket treatments as priority products under its new Safer Products law in order to pursue restrictions. California has proposed that PFAS in carpets, rugs, treatments for textiles and leathers, and food packaging become priority products under its Green Chemistry law.

States all over the country, and countries around the world, are taking aggressive action to address these toxic, persistent chemicals because of the harm they cause to human health, and the ongoing problems they cause in our environment.

Class-Based Approach to Regulating PFAS

It is important to ban these chemicals in food packaging as a class. This is how every state enacting similar bills have acted, because it is the only way we can protect public health. **We know the failures that come from banning chemicals one at a time** - such as with BPA - which this body banned from certain products back in 2010. In its place, the industry started using chemicals like BPS that turned out to have similar negative health impacts.

For PFAS chemicals, they all share a common trait: chains of carbon surrounded by fluorine that makes them difficult to impossible to break down. These bonds that make them or their final degradation products highly persistent in the environment. The former director of the National Institute of Environmental Sciences, Linda Birnbaum, stated in testimony before Congress that "approaching PFAS as a class for assessing exposure and biological impact is the most prudent

approach to protect public health." And in 2015, more than 200 scientists from around the world signed the Madrid Statement, which called for limiting the production and use of all highly fluorinated chemicals. **We need to take a class-based approach, just as other states are taking.**

Overview of S.20

As we've been hearing, S.20 targets five different areas of consumer products that may contain PFAS chemicals. These product categories were chosen because they are some of the most significant routes of exposure and contamination. They are product categories where there's momentum to move away from PFAS and other harmful chemicals due to restrictions already enacted in other states, and because retailers are already moving away from these dangerous chemicals.

On firefighting foam:

You heard from the Professional Fire Fighters of Vermont that there are safer, effective alternatives to PFAS-containing firefighting foams on the market. Firefighting foam has been a major contributor nationally to water contamination issues. Numerous other states have acted to ban these chemicals already, and Vermont needs to protect our firefighters and our water supplies from this unnecessary route of contamination.

There was a takeback program a few years ago for certain PFAS foams in Vermont, so we've started down this road and our fire departments and the Agency of Natural Resources have been leaders in that regard. It was suggested that we should regulate use rather than manufacture of these toxic products - which takes the burden off chemical manufacturers and instead puts it onto our firefighters, which is inappropriate and less effective.

We also heard from the manufacturers that we need these foams for safety in certain instances - but we heard directly from those on the front lines that there are safe alternatives without the range of long-term problems that come with using PFAS. This bill simply mirrors what other states have already done, and our firefighters and residents deserve the same protections as these others states.

On food packaging:

S.20 bans PFAS and phthalates in food packaging, and authorizes the Department of Health to restrict the use of bisphenols in food packaging. This policy is modeled on laws passed in Washington, Maine and New York which ban PFAS from food packaging. **Other state bans on PFAS in food packaging address the entire class of chemicals**, thereby avoiding a whack-a-mole approach. Additionally, other countries like Denmark have already moved forward with a ban on all PFAS from food packaging.

There are alternatives to PFAS, phthalates and bisphenols readily available. A recent study from the Center for Environmental Health found that 60 percent of paper food packaging tested did not contain fluorine (which indicates the presence of PFAS chemicals). PFAS-free grease-resistant

food contact paper and paperboard have been available for at least 10 years. In December, Amazon announced that it will ban certain toxic chemicals and plastics in the food packaging materials used for its Amazon Kitchen brand. McDonald's announced in January that they are eliminating PFAS in all packaging materials by 2025.

It's not just PFAS that food packaging manufacturers are turning away from. Regarding BPA - an article from Packaging Digest from two years ago found that even at that time, "at least 90% of cans no longer use BPA" and instead use acrylic and polyester. Annie's Homegrown - which makes a mac n' cheese very popular with my kids - recently pledged to eliminate phthalates from their food chain. So, **the market is moving away from toxic bisphenols and phthalates to safer, cost-comparable alternatives**.

Questions were raised about using *intentionally added* versus p*resence* in food packaging. The Legislature has taken both approaches in different chemical regulatory bills, and both approaches have precedent and could work well to protect Vermonters' health. Because these industrial chemicals are typically used intentionally in these manufacturing processes due to their characteristics – such as grease-resistance – this *intentionally added* approach should work well in this case to regulate food packaging.

These regulations will, of course, go through the rulemaking process, so there will be plenty of opportunity for ensuring the guidance and rules are clear to those who need to comply, which I think will address a lot of the questions raised by industry groups.

On **bisphenols**, the definition aligns with what we used in Vermont statute in a ban of BPA in 2010, and that bill was successfully implemented without concerns raised on how to interpret or use that definition. In response to the assertion that these chemicals are safe, there was a great analysis done a few years ago by Newsweek (available at this link) that showed that 11 out of 11 industry-funded studies found BPA had no significant health effects, while 109 of 119 studies that had no industry funding (92 percent) did find negative health effects of BPA. Vermont has banned BPA from certain products already due to concerns around the health impacts, and four bisphenols are on the state's list of Chemicals of High Concern to Children.

For **phthalates**, Vermont has already banned a suite of phthalates from certain products, showing that the Legislature has already determined these chemicals present risks to Vermonters' health. There are also 13 phthalates on our list of Chemicals of High Concern to Children. In regard to chemicals like these that impact our endocrine systems, there was a recent book published by a leading global epidemiologist, Shanna Swann, entitled: "How our modern world is threatening sperm counts, altering male and female reproductive development, and imperiling the future of the human race." The data coming out about significantly declining sperm counts and other harms from these chemicals are alarming -- the threats are real.

We know there are safer alternatives – see, for example, this table on alternatives to phthalates, and this table on alternatives to PFAS in food packaging. Unfortunately, these harmful chemicals are still being used. This bill will help ensure all companies have safe, healthy products.

Enforcement

The burden of enforcing this law won't fall on mom and pop retailers, but will be handled through the Attorney General's office. The state can request a certificate of compliance if there is concern that a manufacturer is not following our statute. This enforcement paradigm is the same one Vermont has successfully used in numerous similar laws regulating toxic chemicals in products. Further, because New York and Maine will be implementing similar laws, we anticipate regional shifts in markets that will minimize the enforcement burden on Vermont.

Carpets, Rugs and Aftermarket Treatments

The next section of the bill bans PFAS from residential carpets and rugs and aftermarket treatments. These chemicals are wholly unnecessary in our carpets and rugs - they are added for their stain resistant properties. Other states are starting to address PFAS in carpets and carpet treatments - including Washington State, who is undertaking a regulatory process to restrict their use; and California identified carpets and rugs and aftermarket treatments containing the PFAS chemicals as a priority product for finding safer alternatives under their state's Safer Consumer Products program. Home Depot (the world's largest home improvement retailer) and Lowe's (the nation's second-largest home improvement retailer) announced in the fall of 2019 that they were proactively banning residential rugs and carpets with PFAS chemicals from being sold in their store. Momentum continues in the market, and this demonstrates the availability of cost-competitive alternatives available on the market without the unnecessary addition of these toxic chemicals.

Ski Wax

This bill bans PFAS chemicals in ski wax. PFAS chemicals are added to ski wax to decrease resistance to water and dirt as well as to increase speeds in Nordic skiing races. The International Federation of Skiing, the governing body for the Nordic Skiing World Cup, announced that it will ban PFAS in ski wax. The retailer REI recently announced a ban on PFAS in ski wax and treatment for ski gear. Further, in Vermont, several water systems near ski resorts tested for PFAS under Act 21 came back with high levels of PFAS - suggesting a possible link that it would be prudent to get ahead of.

Chemicals of High Concern to Children

This bill adds PFAS chemicals to the list of chemicals of high concern to children. By adding PFAS to this list, it will simply require manufacturers to report the use of these chemicals in children's products they sell in Vermont. This will give state regulators, parents, and others more information about where these harmful chemicals are being used in our children's products. Vermont's program

was modeled closely on Washington state's program, and they recently passed legislation to enable their Commissioner to add classes of chemicals like PFAS to their list of chemicals of high concern to children, so this is the direction these programs are headed.

A concern was raised about adding the class of PFAS to the list via statute. We believe class clearly meets the criteria set in statute for risk to health and potential for exposure. It's unnecessary to spend years at the Department of Health going through a rulemaking process, particularly when they are stretched so thin right now addressing the pandemic, when these chemicals clearly meet our statutory criteria and need to be addressed as soon as possible. And remember, being added to this list simply requires reporting, it doesn't trigger a ban or other regulatory action.

A concern was also raised about adding PFAS as a class without CAS numbers. I am fully confident that our Department of Health will provide detailed guidance to manufacturers, as they have done every step of the way in implementing Act 188. There is a great Department of Health website with videos and detailed materials to ensure manufacturers know exactly how to comply with our law. I believe the clarity the industry is seeking can and should be provided by the Department of Health.

Conclusion

The federal government has failed to protect us from toxic chemicals. This bill takes important steps to turn off the tap of importing harmful chemicals into our state - particularly PFAS chemicals. You've heard a lot from the chemical industry and their allies about how they are already regulated, and how their chemicals are safe and essential -- but let's remember that globally, we are dealing with a PFAS contamination crisis. It's estimated that hundreds of millions of Americans have these chemicals in their drinking water. Exposure to very small amounts of these chemicals are linked to cancers, immune system harm, and a range of other ailments. S.20 looks to harmonize with what many other states are already doing, it aligns with what many leading retailers are doing, and starts us on the road of eliminating the importation of these dangerous chemicals into our state where we will be dealing with the negative ramifications for generations. We look forward to working with you to move forward this important bill to protect public health. Thank you.