March 31, 2020

Executive Director
Program Development and Engagement Division
Department of the Environment
Gatineau, Quebec K1A 0H3

by email at eccc.substances.eccc@canada.ca

Re: American Chemistry Council Comments on Draft Science Assessment of Plastic Pollution

Dear Executive Director:

The American Chemistry Council (ACC) and its Plastics Division jointly submits these comments on the Government of Canada's Draft Science Assessment of Plastic Pollution (Draft), published in the Gazette Part 1 on February 1, 2020 under the Canadian Environmental Protection Act, 1999. ACC represents the business of chemistry in the United States, including domestic manufacturers and importers of chemicals. Many of our member companies conduct commercial operations in both the United States and in Canada. ACC's Plastics Division represents the major US producers of plastic resins.

As a literature review of the state of the science regarding plastics and microplastics, the Draft is, in our view, reasonably complete and up-to-date. That said, it is merely a literature review coupled with extremely broad research recommendations non-specific to any plastic product, packaging, or resin. It is simply not legally or technically sufficient to support classification of plastics as CEPA toxic. We have a number of serious concerns about this review and the proposed path forward under Canadian Environmental Protection Act (CEPA):

- First, we believe that aggressive, global and regional public-private commitments and partnerships are in place to drive solutions to plastic waste and marine debris, and should be given an opportunity to work. Global waste, litter, and marine debris challenges require solutions through these partnerships.
- Second, CEPA is not an appropriate regulatory framework to apply to leakage of plastic into the environment – what is fundamentally a solid waste issue, not a chemical management, issue.[1] For that matter, CEPA assesses the individual chemical, while here, a true risk assessment must also take into account the behavior leading to the waste issue.

[1] CEPA is even more ill-suited to evaluating polymers which would be considered low hazard in a chemical management regime. For example, many polymers are so low in toxicity that they are widely considered non-toxic and would be eligible for the polymer exemption under the US Toxic Substance Control Act. Under the revised TSCA in the US, these polymers might be better considered low priority for risk evaluation under that statute.

- Third, the generalized approach to reviewing all macroplastics and microplastics lacks an adequate scientific foundation to support conclusions specific to particular plastic products, packaging, or resins to support further action under CEPA. In short, such an approach is inadequate to support adding "plastics" or "single use plastics" generally as a category under CEPA;
- Fourth, we are deeply concerned that Canada appears to be poised to skip a critical step under CEPA, namely, the development of a scientifically robust risk assessment that presents knowledge of exposures and hazards and integrates these to quantify potential risks to ecological species and human health;
- Fifth, we believe a truncated and incomplete CEPA review that bypasses risk assessment is necessarily inconsistent with Canada's commitments to risk principles under the recently signed US-Mexico-Canada trade agreement; and
- Sixth, and perhaps most importantly, we are deeply concerned that moving forward with risk management action now could jeopardize public health given the key role that many plastic products play in health care, particularly in light of the expanding global coronavirus crisis. In fact, sanitary single-use plastic medical products and food packaging are on the front lines protecting public health during the current crisis – and every day.

We urge Environment and Climate Change Canada and Health Canada to consider an alternative, better suited legal mechanism to address the issue of plastic waste. We likewise urge the agencies to consider the public health consequences of making a CEPA toxic determination that the public would associate with plastics, plastic packaging, or resins - a government determination that surely will be misunderstood and misinterpreted by the public at the worst possible time. In the event that CEPA continues to be used as a platform for regulatory decision making, we urge Environment and Climate Change Canada and Health Canada to consider the basis for specific risk assessments supported by complete scientific assessments for each specific plastic product, packaging, or resin as warranted.

Our specific comments follow.

1. Partnership-based solutions that harness the power of the private sector should be given a chance to work.

ACC and our members are deeply committed to ending plastic and other waste in the environment and creating a more circular economy for plastics. We agree that plastic waste in the environment is unacceptable and that the benefits of plastic are diminished when it ends up in the marine environment or improperly on land. We believe these challenges, while significant, are ultimately solvable. The stakes are high: plastics are critical to modern society, from light-weighting vehicles to reduce their emissions, to sealing and insulating our offices and homes, to delivering essential health care, preserving food and preventing food waste, and contributing to an overall higher quality of life.

Likewise, polymers used in contact with foods for food packaging applications already regulated to meet the US Federal Food and Drug Administration's criteria for safety –taking migration into foods into account.

ACC and our member companies have been cornerstones of the global effort to address marine debris and plastic waste. In January 2019, global companies in the plastics value chain, from manufacture to disposal, including many ACC members, announced the creation of the Alliance to End Plastic Waste. This non-profit organization is committing $1.5 billion over five years to help end plastic waste in the environment and will focus on providing solutions to the largest sources of plastic in our ocean. Initially that work will be largely focused on so-called "high leakage" countries—where waste collection and management has not kept pace with growing populations and growing economies. A study in *Science* magazine estimates that almost 60 percent of plastic waste going into our oceans comes from just five countries, primarily in Southeast Asia. Although the United States accounts for less than one percent of this plastic waste, ACC and its members have committed to reusing, recycling or recovering all plastic packaging by 2040 and making all plastic packaging reusable, recyclable or recoverable by 2030.

ACC also helped launch Circulate Capital, a $106 million fund that provides zero-interest financing for waste management infrastructure projects in South and Southeast Asia. The fund seeks to implement many of the findings from the Ocean Conservancy's Trash Free Seas Alliance reports *Stemming the Tide* and *The Next Wave*. Stemming the Tide found that improvements in waste management are critically needed to stop plastic waste in China, Indonesia and the Philippines.

ACC has also led the development of The Declaration of the Global Plastics Associations for Solutions on Marine Litter, announced at the 5th International Marine Debris Conference in 2011. Otherwise known as the Global Declaration, this is a global commitment to combat ocean pollution. Since its inception, seventy-five plastics associations in 40 countries have signed the Declaration and more than 355 projects to address marine debris are planned, underway, or have been completed around the globe. We are working to advance innovative new technologies, increased traditional and advanced recycling infrastructure, develop new uses and end markets for recovered plastics, and a number of other innovative solutions to reduce the amount of plastic that ends up in the environment.

2. CEPA is the wrong tool to address a solid waste problem.

The issue of plastic waste and marine debris is not insignificant, and we agree that it is a matter of public concern and deserves concerted action and meaningful progress. There are many dialogues underway considering whether products are using the right material for the job – the best material to deliver safety as well as environmental benefits across the life cycle. There are different policy approaches available to achieving these ends. But CEPA is designed to evaluate substances with respect to their potential human health and environmental risks. Waste issues are better addressed by policy solutions tailored to them. We encourage Environment and Climate Change Canada and Health Canada, and other sectors of the Canadian government, to work with industry to find viable solutions, including source reduction, innovative product design and delivery systems, increased recycling, advanced (chemical) recycling technologies, and extended producer responsibility programs, to name a few.

When it comes to health and environmental issues, on occasion, there may be multiple legislative options to consider as a platform to evaluate risk and implement risk management solutions.

Indeed, the same chemicals, materials, and products (here, "product") are themselves subject to multiple statutes, with overlapping jurisdiction among agencies. The threshold question must always be whether the statute covers the affected product and gives a regulatory body authority to act. But beyond that, there should be a legal evaluation of whether one statute precludes application of the other, and a policy determination regarding which statute is better suited to regulating the product. This is the "Best Placed Act" principle. A corollary of this principle also applies to sections of a statute, which might be described as the "Best Placed Provision."

CEPA Part 7, International Water Pollution, should be reviewed within this context. Section 175 defines "water pollution" broadly, to include substances that are not otherwise unsafe or toxic – in other words, inert, non-toxic materials – that nevertheless interfere with the normal enjoyment of life or property. This is apt description of unwanted litter and marine debris in water bodies (regardless of substance or material). Section 176 allows the Minister to Act if there is reason to believe that a substance released from a source in Canada into water creates water pollution in a country other than Canada. Given that the US and Canada share an international border with multiple major rivers and the Great Lakes system, this element appears to be met. The Minister has authority under Section 176(3) to "recommend regulations to the Governor in Council for the purpose of preventing, controlling, or correcting the water pollution." While we believe CEPA should not be used at all to address the concerns at issue, that said, it appears that his section of CEPA is better placed to address litter and marine debris concerns than Appendix 1.

3. The Draft improperly "groups" all plastics, and thus the Draft does not reach individualized findings that support further action on any particular plastic, plastic packaging, or resin.

Section 64 of CEPA defines a substance as "toxic" if it is entering or may enter the environment in a quantity or concentration or under conditions that:

> have or may have an immediate or long-term harmful effect on the environment or its biological diversity;
>
> constitute or may constitute a danger to the environment on which life depends; or
>
> constitute or may constitute a danger in Canada to human life or health.

The term "plastic" does not denote "a substance" under CEPA. It is generally understood to mean a subset of chemically-distinct polymeric substances. However, there are many thousands of unique polymers used in commerce today, each of which having its own chemical identity, chemical resistance, and other characteristics. In addition, polymers are compounded to make plastic, such that each particular "plastic" used in a particular application is composed of a number of chemically distinct substances.

The Draft presents a literature review that broadly considers available information about macroplastics and microplastics, but does not individually assess each "plastic," either with respect to the specific polymer relevant to that plastic or the relevant and specific additives; each plastic as used in packaging; or each plastic as used in a particular product.

The Draft also does not adequately present specific findings that take into account use, exposure, and environmental fate specific to each plastic, plastic packaging, and resin. It does not support substance-specific findings related to the entry of the substance into the environment in a quantity or concentration or under conditions that justify further action. For example, a particular additive might be used with some frequency in insulation or electronics, but never used in food packaging. To support further action under CEPA with respect to concerns about that particular additive, a scientific assessment would need to be able to identify which products contain the additive of concern, and to describe exposures to the product and quantify the particular health or environmental concern arising from that particular product. The Draft does not do this.

4. Any risk-based review process should include a risk assessment step.

We believe CEPA is not well-suited to evaluate and recommend solutions to an underlying solid waste problem, to the extent a chemical management regime is used for plastics and microplastics, a comprehensive, scientifically robust risk assessment must precede any considerations of potential risk management actions. The global chemical industry supported a multi-stakeholder workshop from which a risk-based framework[2] for microplastics was developed and published in a peer reviewed scientific journal; this framework is available for use and has been cited in the Draft.

The Draft itself is not a risk assessment.[3] For that matter, it is not a problem formulation or scope of a risk assessment. It does even characterize the most important areas for research, data development, or analysis. It is a literature review. The research recommendations contained in the Draft are quite broad. There are no specific research recommendations tied to conclusions specific to particular plastic products, packaging, or resins. At bottom, regardless of the quality and completeness of the literature review itself, it does not adequately support the broad recommendations made for additional research, and the Draft should be revised to make discrete recommendations based on an expert analysis of data or research needs. As presented, the Draft falls well short of presenting specific, discrete recommendations. If a particular product, packaging, or resin is evaluated, using best available science and weight of the evidence, taking into consideration the quality of studies, and as a result, is deemed to present significant enough concern to warrant a risk assessment, then a robust scientific risk assessment could proceed. It appears, however, that the proposed course of action is to skip over the risk assessment. This is unwise and wholly inconsistent with the provisions of CEPA.

We appreciate that CEPA's preamble indicates that the precautionary considerations should be applied "where there are threats of serious or irreversible damage." But it is critical to use risk assessment approaches so that any finding of "threats of serious or irreversible" damage is supported by objective and transparent scientific analysis of exposures (both current and modeled future exposures) and hazards. In this manner, risk management actions, if warranted can be selected to address, and be commensurate with, the specific potential risks identified. The

[2] https://setac.onlinelibrary.wiley.com/doi/full/10.1002/etc.4529
[3] The Draft itself says "is not intended to quantify the risks of plastic pollution on the environment or human health."

Draft does not provide the foundation for such a conclusion, nor does it purport to make that finding with respect to particular sources of plastics and microplastics as contributions to specific damage. Rather, it calls for additional research. The call for additional research is consistent with specific recommendations for particular targeted research that have been advanced in various scientific reviews, including the World Health Organization's 2019 review of microplastics in drinking water[4] and the European Union's SAPEA January 2019 expert review.[5]

Furthermore, risk-based decision making must also take into consideration alternatives analysis. For example, in the United States, the risk management step under a revised Toxic Substances Control Act requires EPA, "in deciding to "whether to prohibit or restrict in a manner that substantially prevents a specific condition of use of a chemical substance or mixture, and in setting an appropriate transition period for such action, [EPA must] consider, to the extent practicable, whether technically and economically feasible alternatives that benefit health or the environment, compared to the use so proposed to be prohibited or restricted, will be reasonably available as a substitute when the proposed prohibition or other restriction takes effect." (emphasis added).

Alternatives analysis makes clear that focusing on plastic product bans without consideration of the availability and environmental impacts of alternatives is counterproductive. Studies by TruCost and Franklin & Associates show that alternatives to plastics have greater environmental impacts such as greater energy use, increased greenhouse gas emissions and more waste. In a 2016 report, the environmental accounting firm TruCost found the natural capital cost of plastic in 16 sectors to be $139 billion but the environmental costs for alternative materials was estimated at $533 billion annually. This 3.8 fold increase in natural capital costs of alternatives included greenhouse gas emissions, marine litter, and other impacts. In a study of plastic packaging compared to alternatives, Franklin Associates found that greenhouse gas emissions would be doubled by banning plastic packaging.

The potential for policies to increase environmental impacts is especially large for packaged goods, such as food, which often requires a significant amount of energy and water to produce. According to the United Nation's Food and Agriculture Organization (FAO), one third of all food produced never reaches the consumer's table. FAO further states that this food waste results in a greenhouse gas impact of 4.4 GtCO2, which would rank third in terms of total greenhouse gas emissions behind only China and the United States. Reducing food waste through improved handling, logistics, and packaging of food is essential to reducing food waste and the associated greenhouse gas emissions. The essential role that plastic packaging plays in reducing food waste must be considered.

5. The process underway is inconsistent with Canada's obligations under the Canada-U.S.-Mexico trade agreement.

The Canadian Parliament ratified the Canada-U.S.-Mexico Agreement (CUSMA) on Friday, March 13, also receiving royal assent that same day. This high standard, comprehensive trade

[4] https://apps.who.int/iris/bitstream/handle/10665/326499/9789241516198-eng.pdf?ua=1
[5] https://www.sapea.info/wp-content/uploads/report.pdf

agreement contains several regulatory cooperation provisions that require Canada to work closely with the United States and Mexico to foster greater regulatory compatibility on chemical substances in North America. These provisions include the following:

> Each Party shall endeavor to use a risk-based approach to the assessment of specific chemical substances and chemical mixtures, where appropriate. Each Party also intends to encourage, as appropriate, a risk-based approach to regulating chemical substances and chemical mixtures both in international fora and in its relations with non-Parties (emphasis added).
>
> The Parties shall endeavor, if appropriate, to align their respective risk assessment methodologies and risk management measures for chemical substances and chemical mixtures provided that alignment does not prevent a Party from determining and achieving its levels of protection. In its alignment efforts, each Party shall strive to continue to improve its levels of protection.
>
> Each Party, when developing, modifying, or adopting a measure concerning chemical substances or chemical mixtures, shall endeavor to consider how a measure adopted by another Party could inform its decision-making.

The Draft does not itself provide a risk-based review consistent with the CUSMA. Without an evaluation of specific plastic, plastic packaging, and resins, as used and as each specific substance does or may enter the environment, the requirement for risk-based assessment cannot be satisfied. In short, the Draft should be revised substantially to make such specific findings, and any subsequent risk assessment should be based on an appropriate revision of the Draft.

Non-compliance with the CUSMA agreement may also implicate Canada's obligations under the Technical Barriers to Trade (TBT) Chapter of CUSMA and the World Trade Organization (WTO) TBT Agreement. Article 2.2 of the TBT Agreement requires WTO Members to "ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade." Article 2.2 of the TBT Agreement also requires that "technical regulations shall not be more trade-restrictive than necessary to fulfill a legitimate objective, taking account of the risks non-fulfilment would create." In our view, the Draft, if implemented would create an unnecessary obstacle to bilateral trade in used plastics between Canada and the United States, and would be more trade-restrictive than necessary to fulfill a legitimate objective.

Furthermore, as no international standard exists and the technical regulation may have a significant effect on trade of the United States, Canada must honor its obligations under Article 2.9 of the TBT Agreement with respect to transparency and notification. When Health Canada notifies the Draft to the WTO Committee, we request that it provide at least 60 days for interest parties to make comments in writing, consistent with the recommendations of the TBT Committee (see G/TBT/1/Rev.12, paragraph 4.3.1.6).

We urge Health Canada to re-evaluate its use of the Draft under CEPA through the lens of its TBT Agreement obligations.

6. Finalization of the Draft should be deferred until the current global coronavirus crisis is resolved.

Plastics deliver critical health and safety benefits across a wide range of products and packaging. Sanitary, single-use plastics are right now delivering critical health and safety benefits across a wide range of products and packaging. On March 19, 2020, the US Department of Homeland Security issued Guidance on the Essential Critical Infrastructure Workforce: Ensuring Community and National Resilience in COVID-19 Response, which recognizes as essential "single use plastics and packaging that prevents the contamination or supports the continued manufacture of food, water, medicine, and other essential products..." [6] (emphasis added). In light of the current global crisis, plastics will be needed to protect the safety and integrity of food and necessary for use in a wide variety of medical devices and products. Plastics are used in single use surgical and medical gowns; N95 respirators and face masks; protective sheeting; single use disinfecting wipes; surgical gloves and other gloves; food service packaging; packaging for medicines and pharmaceuticals; bottled water; and a wide variety of other critical goods and services.

Globally, regulators and other government bodies are relaxing restrictions and requirements during the crisis. The state of Maine, for example, just extended compliance deadlines for single use plastic bags to ensure that they remain available during the crisis as part of its coronavirus response plan.[7] In Massachusetts, to help protect the health of workers, the Governor banned the use of reusable shopping bags and lifted local bans of plastic bags in grocery stores and pharmacies.[8] New York has announced an enforcement delay of its plastic bag ban.[9] Other states are now following suit, such as New Hampshire. In the meantime, the US Federal Food and Drug Administration has reduced inspections of imported and domestic foods as part of its coronavirus response.[10]

At the same time, global health authorities and businesses are issuing recommendations and requirements for use of face masks for individuals showing symptoms, as well as practices that necessitate use of plastic to protect foods, medical devices and other items, food preparation and delivery, and other critical services.

Making a CEPA-toxic determination at this time could confuse consumers, businesses, and others, and lead to choices that impede the global coronavirus response, impacting public health and potentially the spread of the virus. At a minimum, we urge Canada to delay further action until this crisis is abated – but we further urge Canada to explore better tailored approaches to addressing marine debris and plastic waste, removing this issue from the CEPA process.

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[6] https://www.cisa.gov/publication/guidance-essential-critical-infrastructure-workforce
[7] https://www.plasticsnews.com/news/maine-halts-plastic-bag-ban-part-plan-mitigate-coronavirus-spread
[8] www.wwlp.com/news/health/coronavirus-local-impact/plastic-bag-ban-lifted-during-coronavirus-outbreak
[9] https://nypost.com/2020/03/19/enforcement-of-new-yorks-plastic-bag-ban-postponed-due-to-coronavirus
[10] https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-issues-temporary-policy-fsma-onsite-audit-requirements

ACC appreciates the opportunity to offer comments on the Draft.

Best regards,

Chris Jahn
President and CEO
American Chemistry Council

cc: Hon. Jonathan Wilkinson, Minister of the Environment and Climate Change
Hon. Patty Hajdu, Minister of Health
Mary Ng, Minister of Small Business, Export Promotion and International Trade
Chrystia Freeland, Deputy Prime Minister and Minister of Intergovernmental Affairs
Aldona Wos, US Ambassador to Canada