



NOVA Chemicals Corporation
Post Office Box 2518, Station M
Calgary, Alberta, Canada T2P 5C6
Offices: 1000 – 7th Avenue S.W.
Calgary, Alberta, Canada T2P 5L5

Luis Sierra
President & CEO

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Via Email - ec.plastiques-plastics.ec@canada.ca

The Honourable Steven Guilbeault, P.C., M.P.
Minister, Environment and Climate Change
200 boul., Sacré-Coeur
Gatineau, Québec, K1A 0H3

c/o Tracey Spack
Director, Plastics Regulatory Affairs Division
Environment and Climate Change Canada
351 Saint-Joseph Blvd.
Gatineau, Québec, K1A 0H3

Dear Minister Guilbeault,

Re: Notice of Objection and Request for Board of Review in relation to the *Single-Use Plastics Prohibition Regulations* under the *Canadian Environmental Protection Act, 1999, Canada Gazette, Part I, Volume 155, Number 52*, - December 25, 2021

NOVA Chemicals Corporation ("NOVA Chemicals") submits this notice of objection in response to the December 25, 2021 *Canada Gazette, Part I*, Notice (the "Notice") in which the *Single-Use Plastics Prohibition Regulations* (the "Proposed Regulations") were published. NOVA Chemicals formally objects to the Proposed Regulations.

We also request that a Board of Review be established pursuant to section 333 of the *Canadian Environmental Protection Act, 1999* ("CEPA") to review the Proposed Regulations.

NOVA Chemicals' objection is primarily based on the following:

1. there is no legal basis for the Proposed Regulations under CEPA;
2. the Proposed Regulations are premature;
3. re-use of single-use plastics ("SUPs") is prevalent and innovative technologies exist to address concerns about plastic waste;
4. the Proposed Regulations only substitute wasted items and do not eliminate waste;
5. the Proposed Regulations are based on incomplete science and erroneous analysis; and
6. the Proposed Regulations are broader than the October 2020 Consultations

The sections below provide the supporting details of NOVA Chemicals' objection and outline the areas where new or expanded information is available for consideration by a Board of Review.

About NOVA Chemicals

NOVA Chemicals is Canada's largest petrochemical company and plastic resin producer employing over 2,400 people worldwide, over 2,000 of whom are based in Canada at our head office, technology sites, and manufacturing facilities in Ontario and Alberta. NOVA Chemicals is also currently constructing a \$2.5B CAD polyethylene facility in Sarnia-Lambton, the construction of which is employing nearly 1,500 construction workers and which will employ an additional 145 full-time permanent employees once construction is



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complete. This made in Canada technology will supply high quality, high value polyethylene for predominantly recyclable packaging applications.

Plastics bring great value to society through performance benefits derived from their light weight and high strength, making plastics the preferred alternative for many packaging, industrial, and durable goods. NOVA Chemicals knows that these products do not belong in the environment as unmanaged waste. Our commitment to ensuring plastics stay out of the environment and realize their significant value is a core element of our Sustainability Strategy. NOVA Chemicals is a founding member of the Alliance to End Plastic Waste, a CEO-led, cross value chain initiative pledging \$1.5B USD to end plastic waste. In Canada, we are the lead corporate sponsor of the Great Lakes Plastic Clean-up, an initiative we are proud to support with Environment and Climate Change Canada, the Ontario Ministry of the Environment, Conservation and Parks, and others to prevent litter from entering the Great Lakes at marina locations across Ontario.

At NOVA Chemicals, we are dedicated to working towards a circular economy. NOVA Chemicals has many examples of this commitment, including designing recyclable packaging structures, innovating new products which better integrate recycled content, and working to include recycled polyethylene as part of our product slate. We have partnered with three mechanical recyclers to provide high-quality polyethylene post-consumer recyclable materials (“PCR”) to the market for re-use in packaging applications. One of our partners, Merlin Plastics of Vancouver, BC is now producing over 30MMlbs/yr high quality recycled polyethylene which can be re-used in consumer packaging. We also announced a joint development agreement with Enerkem, a Quebec based company, to convert municipal solid waste, including material recycling facilities residuals and unrecycled plastic waste, into new feedstock to produce polyethylene.

We are also devoted to Operation Clean Sweep Blue, a best management practice to keep plastic pellets, flakes, and powder out of the environment, with increased transparency in reporting all plastic spills.

Issues of Concern

NOVA Chemicals is a founding member of the Responsible Plastic Use Coalition (“RPUC”) and is a member of the Chemistry Industry Association of Canada (“CIAC”). NOVA Chemicals adopts and repeats the submissions that RPUC and CIAC have made in relation to the Proposed Regulations. In addition, NOVA Chemicals wishes to emphasize the points below.

There is no Legal Basis for the Proposed Regulations

On October 10, 2020, the Minister of the Environment and Climate Change and the Minister of Health recommended the addition of “Plastic Manufactured Items” to Schedule 1 (the Toxic Substances List) of CEPA. On December 8, 2020, NOVA Chemicals submitted a Notice of Objection and requested a Board of Review challenging this decision. NOVA Chemicals’ original submission is included as **Tab 1** of this response and NOVA Chemicals repeats and adopts those reasons in objection to the Proposed Regulations as there is no legal or factual basis for the inclusion of “Plastic Manufactured Items” on Schedule 1 of CEPA.

The Proposed Regulations are Premature

The Proposed Regulations are purported to be made under section 93 and Schedule 1 of CEPA.

Despite NOVA Chemicals’ December 8, 2020, submission, “Plastic Manufactured Items” were added to CEPA, Schedule 1 and the government declined to order a Board of Review (collectively, the “**Decisions**”). On May 18, 2021, NOVA Chemicals along with the RPUC, Dow Chemical Canada ULC, and Imperial Oil filed an application for judicial review challenging the Decisions (the “**Judicial Review**”). The Judicial Review is currently before the Federal Court of Canada. NOVA Chemicals anticipates being successful at the Judicial Review, in which case “Plastic Manufactured Items” will be removed from CEPA Schedule 1. Accordingly, there will be no legal basis for the Proposed Regulations, and they must be struck. Therefore, the enactment of the Proposed Regulations is premature and ought to be postponed until the outcome of the Judicial Review where it will be assessed whether there is legal authority to enact the Proposed Regulations.



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Re-use of SUPs is Prevalent and Innovative Technologies Exist to Reduce Plastic Waste

The Regulatory Impact Analysis Statement (“**RIAS**”) focuses on the significant value associated with the re-usability of items. However, for plastic checkout bags, the RIAS fails to fully account for the benefits of their secondary uses and bases their re-use rate on a single California study. There are many Canadian studies¹ that show that plastic checkout bags are not single-use and have high re-use and recycle rates. For example,

- Canadian studies show that 77% of plastic checkout bags are re-used;
- of the remaining 23% of plastic checkout bags, 15% are recycled
- only 8% of plastic checkout bags are not re-used or recycled;
- the net result is that plastic checkout bags have a 92% re-use and recycling rate; and
- Provincial Extended Producer Responsibility programs have recycling targets that will lead to improved recycling rates.

Several existing critical technology solutions were not considered in the RIAS assessment. For example, polystyrene is a highly recyclable material, through mechanical recycling or advanced recycling, which turns it into a monomer that can be re-used repeatedly. Increased collection, densification and technology advances have addressed past issues with the economics and logistics around polystyrene recycling. Recycled polystyrene is in high demand, and has a multitude of applications, including food and non-food packaging, durable goods, and insulation and construction materials.

A 2020 study by Materials Recovery for the Future² concluded several successful pilot projects demonstrating that flexible plastic packaging can be collected, sorted and baled at a material recovery facility (“**MRF**”) through curbside recycling programs.

There are also solutions to collect plastic checkout bags outside of MRFs, in residential recycling collection systems, in MRFs, and to recycle these products into high-value applications such as decking and PCR for re-use into packaging applications in Canada today. For example, the City of Calgary, City of Toronto, Region of Halton, and City of Kingston recycling programs continue to support bag-in-bag collection of flexible plastics, including plastic checkout bags.

Plastic checkout bags have also been collected at front of store collection bins and recycled into applications such as plastic decking board by companies such as TREX for many years. In Québec, a company called Modix Plastique processes 100% post-consumer low-density polyethylene (e.g., plastic film checkout bags) from curbside collection. They recycle this into high-quality raw material for plastic manufacturers of flexible packaging, injection and moulding.

NOVA Chemicals is working with our recycling partners, including Merlin Plastics in Vancouver, and Revolution and Circulus in the USA, to upgrade the quality of recycled Polyethylene (a component of plastic checkout bags) including research on thermal stabilization of PCR, optimizing extrusion conditions and equipment, and minimizing contamination.

In short, the circular economy for flexible plastics and polystyrene is already in place and continues to grow. It is a fundamental flaw to fail to acknowledge the current commercial flexible plastic and polystyrene recycling technologies and established markets. This led to the erroneous determination that these plastic items are incapable of recovery and warrant inclusion in the Proposed Regulations.

¹ [Faits saillants des résultats de l'analyse du cycle de vie environnementale et économique des sacs d'emplettes \(gouv.qc.ca\)](http://Faits saillants des résultats de l'analyse du cycle de vie environnementale et économique des sacs d'emplettes (gouv.qc.ca)). See also City of Toronto 2010/2011 Waste Audit.

² www.materialsrecoveryforthefuture.com/research-results/2020-research-results



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The Proposed Regulations Only Substitute Waste and Do Not Eliminate Waste

The RIAS focuses heavily on single-use plastic *litter* and its impact on the environment. The Proposed Regulations will not prevent littering, they will only change the material of the products that people litter.

The RIAS does not attempt to quantify the impact of the substitute materials on pollution, instead it merely declares that since the alternatives are likely to be made of wood, paper, and moulded fibre, they are not expected to result in long-term harm to the environment. This statement is not founded on scientific evidence.

Due to the increased weight of the plastic alternatives, the Proposed Regulations will actually *increase* the litter and waste generated (according to the RIAS there will be an increase of 1.8 million tonnes over 10 years). This means a greater mass of waste and litter in the environment with unknown, and unstudied, long-term impacts.

The Proposed Regulations are Based on Incomplete Science and Erroneous Analysis

There are several scientific and analytical gaps underlying the Proposed Regulations. In brief, these include:

1. there are no specific studies assessing the scientific factors and consequent risks associated with the SUPs in the environment. Accordingly, it is simply a bare assertion that waste resulting from the SUPs is more harmful to the environment than non-plastic waste;
2. the government's own analysis found that in comparing materials, including the impacts of extraction, production, and transportation, material substitutes for plastic are more environmentally harmful than plastics;
3. there is no evidence that plastic substitutes will decrease littering behaviour;
4. the downstream impacts of single-use plastic substitutes will lead to *higher* emissions and pollution due to their heavier weight requiring more fuel for transportation; and
5. the government did not undertake a proper life cycle assessment review in accordance with standard practice, such as ISO14040/44, and failed to use Canadian data in such assessment. Instead, a literature review was conducted, without citing sources to allow Canadians to fully understand the environmental implications of substituting the SUPs with alternatives.

One of CEPA's "Guiding Principles" is that CEPA "emphasizes the integral role of science" in decision-making.³ The entire statutory scheme of Part 5 of CEPA is fundamentally founded on sound, scientific assessment of risk. *Use of the scientific process/methodologies ensures legitimacy, objectivity and transparency between the public, government and industry.*

Accordingly, to properly consider the Proposed Regulations, a full and complete risk assessment is needed, not only for the SUPs, but also the plastic substitutes which will replace the SUPs.

³ Canada, Environment and Climate Change Canada, [A Guide to Understanding the Canadian Environmental Protection Act, 1999](#) (Ottawa, Environment and Climate Change Canada, 2004) [CEPA Guide] at 3.



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The Proposed Regulations are Broader than the October 2020 Consultations

The October 2020 consultation for the Proposed Regulations proposed the prohibition of plastic checkout bags, cutlery, stir stick, straws, ring carriers and foodservice ware based on them allegedly being environmentally problematic, recovery problematic, and because plastic alternatives exist.

Despite this, the RIAS states that compostable plastic single-use versions of the banned items will also be prohibited. There is no rationale for including compostable plastic items in the Proposed Regulations which again illustrates that the RIAS was not a credible or evidence-based process.

Additionally, there was no consultation about compostable and all extruded polystyrene being banned as opposed to the narrower ban of “foamed polystyrene” which was discussed in the October 2020 consultation. Including all “extruded polystyrene” in the Proposed Regulations, was done without scientific evidence or consultation.

Adding these items to the Proposed Regulations without further scientific analysis, engagement or consultation indicates the arbitrary nature of the selection of items listed in the draft Regulation and undermines industry and public confidence in CEPA.

Request for Board of Review

NOVA Chemicals requests that a Board of Review be established under CEPA s. 333 to address the concerns set out above, in a manner that supports a commitment to science and risk assessment.

Please contact Sarah Marshall at sarah_marshall@novachem.com or (403) 750-3279 should you require any further information

Yours truly,

—DocuSigned by:


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Luis Sierra,
President & CEO

Enclosure – NOVA December 8, 2020, Notice of Objection