



DEC 29 2025

Mr. Chris Tubbe
Manager, Regulatory Affairs and Compliance
Toyota Canada Inc.
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Dear Mr. Tubbe:

This letter is in response to your Notice of Objection and request to establish a board of review to the publication of the proposed Prohibition of Certain Toxic Substances Regulations, 2022 (proposed Regulations), which was received by Environment and Climate Change Canada on July 13, 2022. The proposed Regulations were published in the *Canada Gazette*, Part I, on May 14, 2022.

I have carefully considered all the issues in your Notice of Objection, including those dealing with the nature and extent of the danger posed by decabromodiphenyl ethane (DBDPE) and the other questions and considerations that you brought to my attention. In my opinion, your Notice of Objection does not raise sufficient uncertainty or doubt in the science underlying the proposed Regulations that would warrant the establishment of a board of review under subsection 333(1) of the *Canadian Environmental Protection Act, 1999*. Therefore, I am denying your request, and I will not establish a board of review. The reasons for my decision are explained below and in the Annex to this letter.

Responses to comments in your Notice of Objection related to the outcomes of the screening assessment for DBDPE, which concluded that there is a risk of harm to the environment due to the persistence and widespread occurrence of DBDPE in the environment along with the potential for bioaccumulation and toxicity of its transformation products, are provided in the Annex.

The comments in your Notice of Objection regarding the development of the proposed Regulations have been considered alongside other comments received on these regulations. The specific points you have raised on the proposed Regulations and how they will be addressed are also summarized in the Annex to this letter. Your Notice of Objection raised specific concerns on the proposed

.../2

exemptions for DBDPE, and to address these concerns, the proposed timeline of the DBDPE exemptions will be extended by an additional 10 years (i.e. extended from 5 years to 15 years for new products and from 20 years to 30 years for replacement parts) and the scope of these exemptions will be broadened to include all manufactured items and additional intermediate materials. This extended timeline will allow all stakeholders additional time for the research and development of alternatives, testing and certification, and transitioning their manufacturing and supply chains. Broadening the scope of the DBDPE exemptions will help to reduce the risk of prohibiting critical components, reduce the need to apply for permits under the proposed Regulations for non-exempted parts, and reduce compliance burden of stakeholders throughout the supply chain.

Please note that the comments on the proposed Regulations will be summarized in the Regulatory Impact Analysis Statement that will be published with the final *Prohibition of Certain Toxic Substances Regulations, 2025* (2025 Regulations) in the *Canada Gazette*, Part II, which describe how these matters have been addressed.

I appreciate your bringing your concerns to my attention. Please accept my best regards.

Yours truly,

A handwritten signature in blue ink, appearing to read "Julie Dabrusin". The signature is fluid and cursive, with a prominent loop at the end.

The Honourable Julie Dabrusin, P.C., M.P.

Att.

Annex

Minister of Environment and Climate Change Canada
Detailed Responses to Notice of Objection Comments

- 1) In your Notice of Objection, you requested that I appoint a board of review to investigate and consider the risks posed by DBDPE and the appropriateness of the respective proposed amendments to the PCTSR with respect to: Impact to public safety due to the unavailability of appropriate substitutes; Insufficient timelines for to develop, qualify and implement potential substitutes in volume to address broad scope of applications; Proposed permitting process is not adequate to address lack of viable alternatives to DBDPE; and, Trade and supply-chain disruption arising from global non-alignment caused by decision to pursue independent risk management measures.

Please refer to the points 2, 3 and 4 (below), regarding these concerns.

- 2) The following provides a summary of comments related to **“Potential for severe negative impact to public safety as a result of lack of available substitutes”** as set out in your Notice of Objection and the analysis of the information you have provided:

- 2A) In your Notice of Objection, you commented that DBDPE is used as a flame retardant to meet critical flammability standards and safety requirements in products such as motor vehicles and that DBDPE was used as a substitute for HBCD and decaBDE, which were phased out in alignment with global agreements and regulations. It is important to take note of the risk management measures already introduced.

Flame retardant substances are generally used to meet performance-based flammability requirements. These requirements do not specify what chemical flame retardants need to be used; rather they may require a product or component to pass a laboratory test such as a cigarette smolder or open flame ignition test (ASTM 2014). Using chemical flame retardants such as DBDPE in products is one of the ways by which companies can meet flammability requirements for their products. Alternate substances as well as non-chemical-based alternatives may also be used to replace the use of DBDPE as a flame retardant in various applications.

In addition to the concerns you have raised in your Notice of Objection, a number of similar comments were received during the public comment period for the proposed Regulations. To address these concerns, the proposed timeline of the DBDPE exemptions will be extended by an additional 10 years (i.e. extended from 5 years to 15 years for new products and from 20 years to 30 years for replacement parts) and the scope of the DBDPE exemptions will be broadened to include all manufactured items and additional intermediate materials. This extended timeline will allow all stakeholders additional time for the research and development of alternatives, testing and certification, and transitioning their manufacturing and supply chains. Broadening the scope of the DBDPE exemptions will help to reduce the risk of prohibiting critical components, reduce the

Annex

Minister of Environment and Climate Change Canada
Detailed Responses to Notice of Objection Comments

need to apply for permits under the Regulations for non-exempted parts, and reduce compliance burden of stakeholders throughout the supply chain.

2B) In your Notice of Objection, you commented that the determination to use decaBDE as a structural analogue for DBDPE does not appear to have broad support in empirical research. Establishing this “potential” as actual fact appears to have been overlooked as an important step that should precede implementation of a ban that can have fire safety implications for vehicle occupants.

The use of analogues and read-across in risk assessment, much like decaBDE is used in the [DBDPE screening assessment](#), is well established and internationally recognized. Canada’s [approach to the use of analogues and read-across in risk assessment](#)¹ is consistent with OECD Guidance² and the approaches used in other jurisdictions, including by the European Chemicals Agency (ECHA)³.

DecaBDE is considered to be a suitably close analogue for DBDPE given the high degree of structural and functional similarities between the two substances, and the availability of relevant empirical information. In addition to Canada, the United Kingdom (UK) in 2007 and Sweden in 2024 utilized decaBDE as an analogue substance in their respective assessments of the target substance DBDPE.

Structural and functional similarities between substances have typically translated to similarities in environmental fate, behaviour, and other properties. It is noted that some differences in molecular makeup, dimensions, and configurations exist between DBDPE and decaBDE that may affect the manner in which these molecules interact with their environment; however, these differences are well within what is typical for analogue - target differences found in regulatory risk assessments.

The abundance of empirical data on decaBDE also factored into its selection as the most appropriate analogue for DBDPE. Expert judgement is applied in this process, where chemical properties and the various empirically known properties, fate or behaviour of decaBDE is read-across to DBDPE on a case-by-case (e.g., per endpoint or property) basis rather than in an absolute manner, taking into consideration the suitability and comparability of these attributes.

¹ <https://www.canada.ca/en/health-canada/services/chemical-substances/fact-sheets/analogues-read-across-risk-assessment.html>.

² OECD, *Guidance on Grouping of Chemicals*, 2d ed., 13 April 2017: https://www.oecd.org/en/publications/guidance-on-grouping-of-chemicals-second-edition_9789264274679-en.html.

³ ECHA, Read-Across Assessment Framework (RAAF), 2017: https://echa.europa.eu/documents/10162/17221/raaf_en.pdf/614e5d61-891d-4154-8a47-87efebd1851a.

Annex

Minister of Environment and Climate Change Canada Detailed Responses to Notice of Objection Comments

The assessment of DBDPE draws on the available empirical, modelling, and scientific information for DBDPE. In the absence of certain data on DBDPE, information on its close analogue, decaBDE, was used to evaluate certain properties of DBDPE and its potential to cause adverse effects in the environment including breaking down to lower brominated products. A weight of evidence approach is applied with consideration of multiple lines of evidence, and some uncertainty associated with data gaps in the assessment warranted application of precaution. Thus, weight of evidence, precaution and impact of uncertainty have all been considered in decision-making.

- 3) **The following provides a summary of comments related to “Insufficient timelines to develop, qualify and implement potential substitutes in volume to address broad scope of applications” and “Proposed permitting process not adequate to address lack of viable alternatives to DBDPE” as set out in your Notice of Objection and the analysis of the information you have provided:**

In your Notice of Objection, you provided comments that existing alternatives are not suitable due to: required higher loading rates, lower levels of performance, and/or impact negatively on final use and that you disagree with the Regulatory Impact Analysis Statement (RIAS) that the proposed permits and exemptions are sufficient for stakeholders due to the lack of available alternatives for DBDPE in some products and complexity of obtaining information in the global supply chain where DBDPE use is not monitored. In addition, you commented that global product manufacturers take into consideration regulatory, design, performance requirements which are addressed through a complex global supply chain for components and subcomponents and significant time and costs are associated with switching to alternatives which require research and development, prototyping, performance testing, manufacturing retooling, and regulatory compliance certification. Furthermore, you commented a minimum of 15 years is required to switch to an alternative substance with minimal supply chain disruption and that the proposed permitting system is not suitable for the automotive sector due to administrative burden.

Please refer to the response to point 2A (above) respecting the extended timeline for, and broadened scope of the DBDPE exemptions.

The permit process is intended to deal with unforeseen challenges at the coming into force, for activities that are not covered by an exemption. When there are known challenges, exemptions have been included under the Regulations. Permits are not required for activities that are exempted following the coming into force of the 2025 Regulations and are not intended to extend the time-limited exemptions already granted in the proposed Regulations.

Annex

Minister of Environment and Climate Change Canada
Detailed Responses to Notice of Objection Comments

- 4) The following provides a summary of comments related to **“Trade and supply-chain disruption arising from global non-alignment caused by decision to pursue independent risk management measures”** as set out in your Notice of Objection and the analysis of the information you have provided:

- 4A) In your Notice of Objection, you provided comments that automobile manufacturers operate in global regulatory environment and a substantial lead-time is needed substitute DBDPE across the length and breadth of the global supply chain. In addition, you commented that a poorly timed phaseout would impact vehicle availability and costs to the Canadian consumer and disrupt the cross-border movement of parts.

Please refer to the response to point 2A (above) respecting the extended timeline for, and broadened scope of the DBDPE exemptions.

- 4B) In your Notice of Objection, you commented that the U.S.-Mexico-Canada Agreement (USMCA) obliges parties to not introduce unnecessary barriers to trade but to align risk-assessment methodologies and risk management measures for chemical substances.

The [DBDPE screening assessment](#) concludes that DBDPE is toxic, persistent and results predominantly from human activities and that DBDPE is expected to contribute to the formation of persistent, bioaccumulative and inherently toxic transformation products, such as lower brominated diphenyl ethanes, in the environment. As such, at the time the [risk management approach for DBDPE](#) was published, DBDPE met the criteria outlined in the Government of Canada’s Toxic Substances Management Policy for virtual elimination from the environment (Canada, 1995).

Upon the coming into force of the [Strengthening Environmental Protection for a Healthier Canada Act \(S.C. 2023, c. 12\)](#) in June 2023, the virtual elimination provisions of CEPA were replaced with a new regime that remains risk based. In developing a proposed regulation or instrument respecting preventive or control actions in relation to substances added to Part 1 of Schedule 1 of the Act, priority will be given to the total, partial or conditional prohibition of activities in relation to the substance or of releases of the substance into the environment. For substances added to Part 2 of Schedule 1, priority will be given to pollution prevention actions, which may include prohibition, when managing risks posed by those substances.

An [Order adding DBDPE to Part 2 of Schedule 1 to the Canadian Environmental Protection Act, 1999](#) was published in the *Canada Gazette*, Part II, on February 26, 2025.

Annex

Minister of Environment and Climate Change Canada Detailed Responses to Notice of Objection Comments

As indicated in the risk management approach for DBDPE, the environmental objective for DBDPE is to reduce its concentrations in the Canadian environment to the greatest extent practicable, and the risk management objective for DBDPE is to achieve the lowest level of release of the substance into the Canadian environment, taking into account social, economic and technical matters.

The high importation volumes of DBDPE into Canada, along with information on its uses, indicate potential for widespread release into the Canadian environment. Aquatic exposure to DBDPE is expected through activities such as formulation, either directly to receiving surface water or to a wastewater treatment system that discharges its effluent to a receiving surface water body. In addition, products containing DBDPE have the potential to release DBDPE at various stages of their lifecycle, including use (see house dust studies referred to in Section 10.1.1.2 and Appendix D of the DBDPE screening assessment) and disposal. Once released into the environment, DBDPE will be found mainly in sediment and soil, where it may persist for long periods of time, resulting in DBDPE build-up, as seen by rapid doubling times in sediment in the Great Lakes.

Given the above, regulatory prohibition is the best approach to meet the risk management objective for DBDPE, which is to achieve the lowest level of release of the substance into the Canadian environment, taking into account social, economic and technical matters.

Furthermore, there is nothing in the 2025 Regulations that contravenes the USMCA Agreement given that the addition of DBDPE to the Regulations reflects a risk-based approach based on the conclusion of the screening assessment of DBDPE.

- 4C) In your Notice of Objection, you noted that there will be global non-alignment caused by a decision to pursue independent risk management measures and the prohibition of DBDPE proposed in Canada poses a risk to Canadian industry. In addition, you commented that DBDPE is not listed as a Persistent Organic Pollutant under the Stockholm Convention nor proposed for assessment or new restriction by the United States Environmental Protection Agency. Furthermore, you commented that a global approach (such as the Stockholm Convention) to chemicals management is critical to the automotive industry.**

Canada has been one of the first countries to lead action on flame retardants and was the first country to complete a risk assessment and propose risk management of DBDPE; however, Canada is not alone and since then international action for DBDPE has been underway or has been finalized.

In March 2023, the European Union (EU), under the [European Chemicals Agency \(ECHA\)](#) published their [Regulatory strategy for flame retardants](#), which has a focus on

Annex

Minister of Environment and Climate Change Canada
Detailed Responses to Notice of Objection Comments

brominated flame retardants and their prioritization for restriction, including DBDPE. This document noted that:

For decabromodiphenyl ethane (EC 284-366-9, DBDPE) data was requested regarding potential bioaccumulation under substance evaluation and has been assessed by the PBT expert group. The available data, including field studies, appear to confirm the Persistent, bioaccumulative and toxic (PBT) properties of the substance.

Furthermore, on October 31, 2024, ECHA updated the [substance evaluation status for DBDPE](#) as ‘Concluded’ and published a [Substance Evaluation Conclusion and Evaluation Report](#) that considers DBDPE to meet the [Regulation on the registration, evaluation, authorisation and restriction of chemicals \(REACH\)](#) Annex XIII very persistent and very bioaccumulative criteria, wide dispersive use and high aggregated tonnage concerns and the need for follow-up regulatory action at the EU level. The report notes the restriction of aromatic brominated flame retardants as proposed in ECHA’s Regulatory strategy for flame retardants appears as a logical continuation following a formal hazard identification as very persistent and very bioaccumulative for DBDPE.

On June 27, 2025, ECHA published a [proposal](#) for identification of DBDPE as a substance of very high concern (SVHC) on the basis of the criteria set out in REACH Article 57. A [REACH Annex XV report](#) was prepared by Sweden to support the proposal for identification of DBDPE as a SVHC.

In the United States (US), DBDPE is listed as a new chemical and is subject to a [Significant New Use Rule](#), which requires manufacturers and processors to notify the US [Environmental Protection Agency \(EPA\)](#) before a new use for the manufacture, import or processing of DBDPE begins. In June 2021, the EPA made [DBDPE subject to a Final Health and Safety Data Reporting rule](#) pursuant to the [Toxic Substances Control Act \(TSCA\)](#) as part of a grouping of 30 organohalogen flame retardants being evaluated for risks by the [Consumer Product Safety Commission \(CPSC\)](#). In January 2024, the CPSC published [Organohalogen Flame Retardant Scope Document: Polyhalogenated Benzene Aliphatic and Functionalized Subclass](#) report (the PHBzAF subclass, which includes DBDPE) which concludes that “the PHBzAF subclass has sufficient data to proceed with risk assessment”. Furthermore, DBDPE is restricted in some consumer products under general flame retardant restrictions in some states, such as [California](#), [Maine](#), and [New Hampshire](#).

In August of 2021, Australia published their [assessment of DBDPE](#) and found that DBDPE:

Annex

Minister of Environment and Climate Change Canada
Detailed Responses to Notice of Objection Comments

meets the persistence, bioaccumulation, adverse effects in aquatic and terrestrial organisms and long-range transport criteria of Annex D of the Stockholm Convention on Persistent Organic Pollutants. Therefore, on the basis of the current hazard information available, the assessed chemical could pose an unreasonable risk to the environment.

The Australian report also recommended control measures be developed under the [Industrial Chemicals Environmental Management \(Register\) Act 2021](#).

On June 26, 2025, the Australian government finalized its risk management for DBDPE after publishing a statutory public consultation on the proposed risk management for DBDPE in April 2025. The [Industrial Chemicals Environmental Management Standard for decabromodiphenyl ethane \(DBDPE\)](#) is a final scheduling decision to list DBDPE to Schedule 6 of the [Industrial Chemicals Environmental Management \(Register\) Instrument 2022](#). Schedule 6 of this instrument lists “Relevant industrial chemicals that are likely to cause serious or irreversible harm with essential uses” and specifies the risk management measures, including prohibitions and restrictions, that apply to the relevant industrial chemical or a mixture or article containing such a chemical (Australia, 2025).

Canadian risk management for DBDPE takes into consideration actions taken in jurisdictions, including the EU and the US, with the possibility of aligning where appropriate.