# Joint statement on amending the annexes of Regulation (EU) 2019/1021 on Persistent Organic Pollutants (POPs)

## Revision of the Low POP Concentration Limit (LPCL) for PBDEs including decaBDE in Annex VI of Regulation (EU) 2019/1021

**The organisations involved in the preparation of this statement would like to express their serious concern on the draft report published by the European Parliament to set, in Annex IV of the EU POP Regulation, a Low Pop Concentration Limit (LPCL) for decaBDE at concentrations *"equal to 200 mg/kg (0.02 % by weight) [i.e. 200 ppm] with a further reduction after 5 year to 100mg/kg (0.01 % by weight) [i.e. 100 ppm].***

### ➢ Legislative Context

Adopted in June 2019, the recast Regulation on Persistent Organic Pollutants (POPs) set the contaminant limits that largely determine the treatment of the waste and, in particular for limits in Annex IV, define whether a waste containing specific POP substances should be disposed of in such a way that the POP content is destroyed or irreversibly transformed or whether it can be subjected to other recovery or disposal operations, including recycling.

The entry concerning PBDEs (including DecaBDE) in Annex IV contains a clause requiring the EU Commission (hereinafter the Commission) to review the Low POP Concentration Limit (LPCL) for these substances by 16 July 2021. The limit value for the substances is currently set at 1,000 mg/kg. The Commission was asked to look at the feasibility of reducing the aforementioned value to 500 mg/kg as finally published on 28 October 2021.

The signatory organisations to this position paper acknowledge the challenge set out by the Commission and believe that the discussion and decision around any revision of the LPCL for PBDEs needs to be based on current scientific knowledge and the factual situation concerning the sound waste management and treatment of POP containing materials in the electrical, electronic and automotive sectors in the EU.

### ➢ What is the current legislation regulating PBDEs in plastics in a nutshell?

In 2003 and 2008, the EU restricted the use of PBDEs and decaBDE in electrical and electronic equipment under the RoHS Directive[1]. This had as a result the decline of these substances -in terms of concentration – in waste electrical and electronic equipment (WEEE) waste streams. The current PBDE threshold set in the RoHS directive is 1000 ppm. According to a 2020 study (SOFIES, 2020), this trend is predicted to continue in the years to come, irrespective of any other legal threshold..

[1] EUR-Lex - 02011L0065-20200901 - EN - EUR-Lex (europa.eu)

Almost a decade later, in 2017, the European Commission adopted a restriction under REACH allowing a level of decaBDE of 1000mg/kg (0.1%) in articles placed on the EU market. This threshold was back then found to be suitable "*to enhance the enforceability of the restriction [and] analytical methods to verify concentration are well established*".[2]

Finally, in 2019, the recast of the EU POP Regulation[3], included, for PBDEs listed in Annex I of the EU POP Regulation (tetraBDE, pentaBDE, hexaBDE, heptaBDE and decaBDE), an unintentional trace contaminant (UTC) value of 10mg/kg. However, a derogation stating *"for the purposes of the entries on tetra-, penta-, hexa-, hepta- and decaBDE, point (b) of Article 4(1) shall apply to the sum of the concentrations of those substances up to 500 mg/kg where they are present in mixtures or articles,…."* was also included into the above mentioned annex. Recycled plastics are defined as "article".

This derogation, allowing a limit of 0.05% (500 mg/kg) in products, is vital for the recycling industry: **it is simply not technically possible to further reduce the UTC level in recycled plastics from WEEE and End-of-life vehicles (ELVs) without significant consequences for the EU technical plastics recycling industry.**

In the same 2019 Recast of the POP Regulation, Annex IV set out the LPCL for the PBDEs listed at 1,000 mg/kg with a provision for the Commission to review this limit value and propose legislation to lower the value to 500 mg/kg. This review – as above mentioned - was completed on 28 October 2021.

- **What would be the practical consequences for the recycling industry processing ELVs and WEEE of reducing the LPCL for PBDEs from 1,000 to 500 mg/kg?**

Reducing the LPCL to 500mg/kg will undoubtedly have negative consequences for the recycling industry processing ELVs and WEEE for a number of reasons. These reasons include:

- **Considerable uncertainties regarding the methods of analysis:** Lowering the LPCL to 500mg/kg would also be a challenge from a laboratory standpoint. The current absence of available standards for measuring such low values creates unprecedented uncertainty in the recycling industry. The uncertainty increases the lower the limit value is set. EU's 2030 and 2050 targets can only be achieved if legislation goes hand in hand with standards.
- **Increase of recycling costs:** A very low limits value result in more laboratory tests for some waste streams which automatically increase the cost of recycling. In turn, higher recycling costs might increase incineration rates, thing which will undoubtedly act as a barrier in reaching the targets set in the new Circular Economy Action Plan (CEAP).
- **Create instability within the recycling industry**: most of the recycling companies currently located in the EU are new small to medium size companies that are investing on the latest technologies which will allow them to significantly reduce the POP content level of plastics deriving from ELVs and WEEE. These investments involve an element of risk which is calculated based on existing regulations. A constant change of applicable thresholds acts as an immediate disincentive to further invest in state-of-the-art separation technologies to sort brominated from non-brominated plastics. Yet, these investments are essential to turn technical plastics waste into resources, which would otherwise need to be incinerated and add to unnecessary $CO_2$ emissions.

[2] RAC and SEAC opinion: https://echa.europa.eu/documents/10162/b5ac0c91-e110-4afb-a68d-08a923b53275

[3] 2019 react of EU POPs Regulation: REGULATION (EU) 2019/ 1021 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL - of 20 June 2019 - on persistent organic pollutants (europa.eu)

The signatories therefore oppose to lower the LPCL to 500 mg/kg while simultaneously state that a limit of 200 mg/kg would result be catastrophic for both from an environmental, material resource and social standpoint. It is in contradiction to the logic of REACH and RoHS and it reduces the Circularity of Tech Plastics.

A period of 3 years – before further lowering the existing LPCL of 1000 mg/kg – is believed to result beneficial both from an environmental and a social standpoint. This transition period is needed to harmonize measurement methods and make further investments in separation techniques to achieve such a limit value of 500 mg/kg.

- What would be the practical consequences for Circular Economy and the recycling industry processing ELVs and WEEE of reducing the UTC from 500 mg/kg?

Should the UTC for PBDEs be reduced from the current limit of 500mg/kg, the consequences would be the following:

- Recycling plastics from WEEE or ELVs in Europe will come to an end: producing recycled plastics containing less than 200 mg/kg of decaBDE is not technically feasible at industrial scale, even for the best performing operators. A targeted dismantling of flame retarded components would neither be feasible nor would it improve the situation. This would effectively halt companies that invested heavily in the development of innovative sorting processes, while bringing no added benefit to the protection of human health or the environment

- Halt innovation: stop innovation efforts to recover more plastics from the WEEE plastics stream, as any lowered UTC threshold value cannot consistently be met with new polymers from the WEEE plastics. It might even result in some recently added innovative new recycled tech-polymers to be taken off the market.
- Larger amounts pushed into undocumented streams: WEEE plastics will be undoubtedly pushed into the "undocumented streams" and the POP BFRs contained in them will not be properly separated and destroyed.
- Record $CO_2$ environmental benefits stemming from plastics recycling will be eliminated: As outlined by the Plastics Strategy itself according to which recycling 1 million tons of plastics equals the $CO_2$ savings of taking 1 million cars off the road[4].
- Recycling industry at a competitive disadvantage: Introduction of lower limit values – which are no justified from a technical viewpoint - will reduce the quantity of recycled plastics in the EU and thus promote the use of their primary relatives in the manufacturing process of new products/materials. This is also strongly linked and connected with the fight of the EU COM and EU Parliament to reduce the release of GHG emissions.
- Substantial and direct negative socio-economic impacts for the European plastics recycling industry since plastics recycling is at least 30 times more labour-intensive than options lower in the waste hierarchy, namely incineration[5]. This implies the loss of direct and indirect jobs in the sector. Additionally, there might be problems with the incineration capacities, that already today have limitations to high calorific wastes.

These consequential impacts run contrary to the objectives of the Circular Economy and in particular of the Plastics Strategy. They would *de facto* halt any further investments into plastics recycling from WEEE and ELVs and render impossible any pledge for incorporation of recycled plastics from WEEE and ELVs in new products.

They would further lead to a substantial increase in requirements for incineration capacity in the EU as well as

[4] Figure stemming from the joint study made by FEDEREC and ADEME assessing the environmental impacts of recycling using a life cycle assessment (LCA) approach, Final report, April 2017.
[5] Figure stemming from the study made by Bio by Deloitte for Plastics Recyclers Europe.

encouraging further legal and illegal export of technical plastics out of the EU to countries with sub-standard recycling operations.

The undersigned co-signatories therefore call for:

1. EU policy makers to "walk the talk" on the Circular Economy and commit to the conservation of high-quality plastics recycling from WEEE and ELVs in Europe. The EU-wide "pledging campaign" dimension of the Plastics Strategy has resulted in positive signals for the incorporation of recycled plastics back into electrical and electronic appliances as well as in new cars
2. The adoption of a science-based and technically feasible LPCL for PBDEs in waste with 1,000 mg/kg being the optimal limit value for the next 3 years. The industry believes that a 3-year transition period – before introducing a value equivalent to 500 mg/kg - is needed to maintain and continue the recycling of technical plastics from WEEE and ELV waste in the EU.
3. No reduction in the UTC threshold for PBDEs of 500mg/kg to ensure effective use of post-consumer recycled plastics from WEEE and ELV plastics streams in new products or in new EEE or automotive components.

The co-signatories thank you for the attention paid to this joint paper and stand ready to provide any further information or supporting documents related to this position paper.


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