

Response ID ANON-75K5-1Z6E-J

Submitted to Consultation on potential amendments to the Persistent Organic Pollutants (POPs) Regulation
Submitted on 2023-04-26 15:41:27

About you

1 Would you like your response to be confidential? (Required)

No

Reason for confidentiality:

2 What is your name?

What is your name?:

(Redacted) (Redacted)

3 What is your email address? If you enter your email address, then you will automatically receive an acknowledgement email when you submit your response.

Email address:

(Redacted) @ (Redacted)

4 Are you responding as an individual or on behalf of an organisation?

Organisation

5 What type of organisation are you responding on behalf of?

Industry association

Other:

6 If you are responding on behalf of an organisation, what is the name of the organisation?

organisation name:

Plastics Recyclers Europe (PRE)

7 Where in the UK are you/your organisation based and/or in operation? (tick all that apply)

England, Wales, Scotland, Northern Ireland, Outside the UK (EU)

Waste limits (iv) - Polybrominated diphenyl ethers (PBDE)

35 Is this proposal of particular importance to you and/or the organisation you represent?

Yes (please specify how below)

why important PBDE WL (iv):

Plastics Recyclers Europe (PRE) is an organization representing the voice of the European plastics recyclers who reprocess plastic waste into high-quality material destined for the production of new articles. We are particularly interested in this revision as some of our members treat and recycle plastics waste originating from WEEE and ELV materials in the UK and consequently are affected by a potential lowering of this threshold.

36 To what extent do you agree or disagree with our proposed waste limit for PBDE (350 mg/kg, dropping to 200 mg/kg 5 years after entry into force)?

Strongly Disagree

37 Please explain the reasons for your answer to question 36, with reference to evidence and/or possible alternative options where relevant

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PRE favours option 2 to have a gradual reduction of the threshold from the current 1000 mg/kg. The plastics recycling industry has made vast progress to treat complex waste streams. The processes implemented at the recycler facilities successfully manage to produce recyclates below 500 mg/kg of the sum of the PBDEs. The remaining fraction, containing the concentrate of PBDEs is to be sent to disposal for destruction.

Considering how plastic waste contaminated with PBDEs is treated in a recycling facility, PRE strongly believes that mechanical recycling is the best route to ensure that plastics containing PBDEs are sorted and destroyed accordingly. Consequently, the limits set in the POPs Regulation should facilitate

mechanical recycling as a solution for the management of plastics containing PBDEs, in line with the transition to a circular economy.

In a study on representative sampling to determine POP limit values in waste plastics made by INERIS (European Commission (Directorate general for Environment), Bio Innovation, INERIS, RPA 2021. Study to support the assessment of impacts associated with the review of limit values in waste for POPs listed in Annexes IV and V of Regulation (EU) 2019/1021), which was part of the impact assessment on the POP Annex IV limit values in the EU, it was calculated that to be representative for a limit value of 200 mg/kg, a sample of 1000 kg (approximately 1 big bag) should be taken. Laboratories are not capable of handling these quantities. For example, performance of solvent extraction for PBDE analysis is done on samples with a size in the order of magnitude of grams. To an analytical laboratory, the performance of solvent extraction on 1000 kg is unfeasible. Extreme homogenization through successive melt extrusion and/or micronisation would be necessary to even potentially approach representative results.

Taking this point into consideration, the Government research with the Environment Agency showing that eight UK plastics recyclers achieved the 350 mg/kg result might be inaccurate due to the limited samples taken. Moreover, the methodology applied is hardly applicable in a continuous monitoring routine which would be necessary to assess this type of waste stream. Results from samples taken from one of the eight operators was rejected for operational reasons, meaning the assumption that the 350 mg/kg is achievable was based on 21 samples only.

Moreover, the lack of accurate scientific and validated screening methods suitable for industrial volume-based continuous operations does not allow recyclers to have the certainty and assurance they require for their clients that the recovered materials comply with unintentional trace contaminant (UTC) values that are lower than 500 mg/kg. PRE calls for the development of a validated test method available for use on a continuous basis on an industrial scale to allow recyclers to state with confidence their compliance to the POPs Regulation.

Furthermore, the limit of 350 mg/kg proposed in the lead option, cannot be consistently achieved for SDA (small domestic appliances) and ICT (information and communication technologies) plastics (relevant sub-streams of WEEE plastics). Lowering to such low value will lead to a situation where waste which can currently be recycled will instead be sent to disposal (energy recovery), thereby contradicting the waste hierarchy and the principles of a circular economy.

PRE favours the lowering of the threshold from 1,000 mg/kg to 500 mg/kg, representing a 50% reduction, which is already a substantial effort for the plastics recycling industry. During these 3 years at 500 mg/kg, an investigation on the levels of PBDEs that can be achieved in recyclates should be undertaken. This information could then be used to have an informed discussion on further lowering of the limit at that time. Any subsequent lowering of the limit value from 500 mg/kg to 350 mg/kg should first be subject to a risk analysis to determine the impacts at that time.

38 Based on current EA evidence, decreasing the PBDE waste limit to 200mg/kg in GB is expected to have no/minimal additional impacts on WEEE/ELV plastic recycling, compared to existing waste limits. Are you aware of any evidence to either support or oppose this? Please provide details if so.

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Waste Hierarchy impact: Large quantities of plastics will have to be incinerated or sent for disposal instead of recycling and recovery, which is in contradiction of the waste hierarchy and the principles of a circular economy. The additional affect that must be considered is the availability (or lack thereof) of appropriate incineration or disposal capacity in the UK.

Halt innovation: Currently, five different polymers are recovered from WEEE, and the recycling industry is developing techniques to recover more polymers from this mix. These innovations to recover other types of polymers from WEEE plastics will slow down and most likely stop should the threshold be significantly lowered.

Increase of illegal activity: The amount of WEEE plastics entering undocumented flows including illegal exports, is likely to increase. Plastics sent overseas are likely not to meet the equivalent standards set for UK recyclers, and this will invariably mean that recovered non-compliant materials will be used in the manufacture of new EEE and subsequently be imported back into the UK.

39 Are you aware of any evidence to indicate the presence of PBDE in CDW plastics and textiles, and/or other waste streams or sectors? Please provide details if so, including with reference to relevant waste streams, tonnages, concentration levels and impacts where possible.

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NA

40 Are there any additional costs you anticipate for disposing of PBDEs contaminated waste under the proposed waste limit (such as incineration gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes etc)? If so, please can you provide any supporting evidence.

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The lack of incineration capacity in the UK will render the disposal of the plastics contaminated with PBDEs more complex in the future. It may lead to unsafe disposal of the material and therefore increase the potential release of PBDEs into the environment. By reducing the threshold, more waste will be considered POP waste and therefore will have to be destroyed. Significant incineration capacity must be developed to match the volumes that will have to be directed to disposal instead of recycling.

To be a bit more specific, when shredder light fraction material, which is normally presumed to be POP waste due to PBDE content, is sent from WEEE treatment centres to specialised plastics recyclers, these are able to recycle 40 – 60% of the weight of the input material into recyclate with a positive

market value and a PBDE level of <500 ppm. Consequently, it reduces the mass of material that is to be incinerated by roughly 50%. A too low limit would eliminate the possibility to generate a recycle and would roughly double the volume of material that is to be incinerated as the whole fraction would have to be sent to incineration. Such an increase in volume would put a severe strain on the incineration capacity of the UK, potentially driving gate fees for the shredder light fraction and other wastes strongly upward.

41 Are you aware of any other organisations that may be impacted by this proposal? Please provide details if so, including references to the number of organisations, types of organisations (Local Authorities, businesses, independent or public bodies), size (micro, small, medium or large), and the anticipated impacts, if known.

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NA

Any other comments or evidence to share?

110 Please use this space if you have any other comments or evidence that you would like to share relating to this consultation.

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