PRELIMINARY DISCUSSION POINTS – POP WASTE IMPACT ASSESSMENT

EXPERT GROUP ON WASTE CLASSIFICATION AND POPS WASTE - 25.03.2021

This document has the purpose of briefly presenting a number of issues, identified in the draft impact assessment in support of the amendment of Annexes IV and V of the POPs Regulation, with the purpose of initiating an informal preliminary discussion, collecting initial views from Member States and obtaining country-specific information, where possible.

This discussion will be held in the meeting of the Expert Group on Waste (Waste Classification and POP Waste) of 25 March 2021 (online meeting) and is purely informative and informal, without pre-empting discussions with Member States to be held during co-decision, once a proposal by the Commission is submitted.

Elements on which the views of the members of the Expert Group is sought:

1. **Possible impact of reduced PCDD/F limits on the management of domestic burning and biomass ashes. Other impacts on uses of ashes in construction, backfilling and agriculture.**

   Domestic burning of wood and coal is know to be a major source of emissions of particulate matter and dioxins to the air. Ashes generated by this burning are know, at least in some cases, to have high levels of dioxins and furans. Under the option currently being considered it is possible that between 180 – 720 kt / year of ashes from domestic burning of wood and coal would exceed the limits under consideration and be classified as hazardous waste. This waste would require separate collection as hazardous household waste, with estimated additional costs, only in terms of HW landfilling / underground storage of 40 – 160 M€ / year.

   In addition a fraction of ashes produced by biomass plants (power / heating) could also exceed possible new limits and require management as hazardous POP waste. This could represent between 27 – 110 kt of ashes diverted from non-hazardous landfill, construction and some agricultural use, to hazardous waste disposal in HW landfill or underground storage, with estimated additional costs of 6 – 25 M€ / year.

   - ***Q1a) What are the current practices in your country on collection and treatment of domestic burning ashes? Do you have analytical information on PCDD/Fs content?***

   - ***Q1b) What would be the costs and the practical challenges of setting up a separate collection system for this type of waste? Is this waste stream being considered in view of the obligation under Article 20(1) of the Waste Framework Directive?***

   - ***Q1c) To what extent are 1) ashes from domestic burning, 2) biomass ashes, 3) other ashes (MSWI, coal fired-power plants, ashes from burning sludge) used in agriculture or forestry as a soil amendment in your country?. Is***

their spreading on land authorised as a waste management operation (D10)? Who authorises and subject to what limits for PCDD/Fs?

- ***Q1d) Do you have national / regional limits for PCDD/Fs for sewage sludge that is applied on land for agricultural purposes?.***

- ***Q1e) To what extent are these different ashes used in construction / backfilling? (e.g. as an asphalt filler, as input in clinker manufacture, as base layer for roads, surface layers in landfills). Is there legislation / technical standards setting limits for PCDD/F (content or leaching) for use in construction? Is this regulated under waste or under product legislation?***

2. Possible impact on waste oils of introducing dl-PCBs in the PCDD/F limit (as TEQs)

The option of including dl-PCBs into the sum limit value for PCDD/Fs is being considered, given the common toxicological mode of action of both families of compounds. This would require analysing all potentially impacted wastes with a high-resolution GC-MS method such as EN-16190-2018.

Introducing such a joint limit value, depending on the limit, could introduce major analytical and logistical challenges to waste oil recyclers, which currently only analyse systematically total PCBs, with a much higher limit (50 mg/kg, versus possible new limit values for PCDD + dl-PCBs in the low µg/kg range). Industry stakeholders claim such limits could be highly disruptive, require investment in new analytical equipment, have a high economic impact and endanger regeneration of waste oils in the EU.

Q2a) Do you have information / national studies on the presence and concentration of dl-PCBs in waste oils?

Q2b) Do you have specific requirement in your national waste legislation that requires the analysis of dl-PCBs in waste (with a limit either on its own or together with PCDD/Fs)?

Q2c) Do you have information on the presence of dl-PCBs in shredded WEEE / ELV waste, in particular in the mixed plastic fraction?

3. Possible indirect impacts of lowering limits for PBDEs – national / regional classification as hazardous waste and barriers to waste shipments.

Concentrations of listed PBDEs in WEEE / ELV waste have been readily declining over the last decade, as shown by a number of recent studies, indicating a value of 500 mg/kg as sum of PBDEs is already generally achievable today. Lower concentrations

are also likely achievable in the near future, despite some reported difficulties associated to sampling and analysis (using XRF techniques).

Specialised recyclers of WEEE / ELV plastic, with a maximum of some 30 installations in the EU, claim additional, important impacts associated to any lowering of the current Annex IV limit, resulting from national regional practices that would result in WEEE, and in particular the shredded plastic fraction, to be classified as hazardous waste. It is claimed that this would result in an important barrier to the transport and the treatment of waste (especially cross-border), resulting in less plastic waste available for recycling and increased costs that allegedly, can threaten the viability of the sector. It is also claimed that this would also affect Member States' performance in achieving the minimum recycling and recovery targets set out in the EU law (e.g. WEEE Directive, Annex V).

Q3a) Do you use the limit value for PBDEs in Annex IV of the POPs Regulation to classify waste, in particular shredded WEEE / ELV plastic waste as hazardous or to trigger any other national obligations? If yes, what are your requirements in terms of waste shipments and for the treatment installations (e.g. is a hazardous waste permit required?). If no, do you apply waste shipment notification procedures for waste with concentrations above the limit value for PBDEs in Annex IV, on another basis?

Q3b) Do you have any specific information on the presence of PBDEs in demolition waste? (e.g. in sealants, construction plastics). Are these demolition wastes usually segregated and treated separately in your country?

Q3c) How many installations specialised in treating WEEE/ELV plastics exist in your country? Do they treat plastic waste in general, including from WEEE/ELV, only mixed WEEE/ELV plastics or are even more specific operators active?

4. Possible impacts of lowering limits for HBCDD – mixed mineral fraction of demolition waste containing EPS/XPS

HBCDD has been used widely at concentrations between 0.7 – 1.5% as a flame retardant in EPS/XPS insulation panels used in construction until very recently (2017). The presence in EPS/XPS containing HBCDD in demolition waste is expected to increase in the coming decades, peaking around 2050 and beyond. Concentration in packaging has decreased steadily in the past decade and currently, in the EU, there are no authorised uses of HBCDD, which has been substituted by a polymeric brominated flame retardant.

Currently recycling of XPS/EPS insulation panel is limited to post-industrial, clean material, with most demolition insulation reportedly being incinerated or disposed in landfills. Promising solvation-based processes to remove HBCDD from polystyrene are currently in an industrial pilot-phase under the PolystyreneLoop project. The IA

study has revealed some concern that a relevant fraction of mineral demolition waste may be contaminated with adhered EPS/XPS. A lowering of the limits could result in millions of tonnes of mixed mineral demolition waste exceeding the Annex IV limit, which would potentially have to be diverted from recycling or inert / non-HW landfill to incineration or HW landfill / underground storage.

Q4a) What is the current practice in your country in dealing with EPS/XPS generated in demolition? To what extent is the material segregated and how is it treated / disposed of?

Q4b) Do you have any legislation or product specifications addressing the presence of HBCDD in mixed demolition waste? Do you have analytical information on HBCDD in mixed demolition waste? To which extent do you consider this to be an issue?

5. New limits for PFOA and PFHxS – impacts of textile reuse and recycling? Impacts on mixed municipal waste?

The introduction of new limit values in Annex IV is being considered for PFOA, its salts and PFOA-related compounds as well as for PFHxS, its salts and PFHxS-related compounds. Limit values under consideration are in the low mg/kg range, or even lower, for PFOA, PFHxS and their respective salts, with higher values for the related compounds.

Information about the concentration of these substances in waste is almost non-existent, which makes it very difficult to make any informed assessment of impacts. There are however some indications that some textile waste such as all-weather garments and some carpets (resulting from demolition) could exceed limit values being considered. Currently, textile recycling (fibre to fibre) is very limited in the EU but a significant amount of textiles are reused.

Q5a) Do you have any analytical information about concentrations of PFOA / PFHxS and their salts and compounds in in waste, especially in carpets, other textiles and EEE?

Q5b) Do you consider that setting limits, of the lower magnitudes under consideration, could have an impact on future textile recycling?

Q5c) Do you have information about the concentrations of PFOA in mixed municipal waste (which contains textiles)? Do you perceive this as a potential issue if limits were to be considered at values for PFOA and its salts of 1 mg/kg or below?

6. Limits for Pentachlorophenol in waste. Analytical concerns?

Regulation (EU) 2019/636, which amended the previous POPs Regulation in 2019, introduced an Annex IV value of 100 mg/kg and an Annex V value of 1000 mg/kg for PCP. These could not be taken up in the current Regulation (EU) 2019/1021 and the

Impact Assessment is done based on the assumption of the re-instatement of these limits, which were politically agreed only recently.

In December 2020, Annex I of the POP Regulation was amended to introduce an unintentional trace contaminant (UTC) limit value of 5 mg/kg for PCP. According to the available information, limits lower than 100 mg/kg could be possible, with none or very limited expected impact. During discussions that lead to Regulation (EU) 2019/636 some Member States expressed analytical concerns associated to lowering limit values, especially below 50 mg/kg. The current limit of quantification of CEN/TR 14823:2003 relative to analysis of PCP in wood and wood-based products is of 0.1 mg/kg.

Q6) Do you consider that there are analytical challenges in applying a limit below 100 mg PCP /kg in waste?

In addition to input that could be provided during the discussion in the expert group meeting of 25 March, written comments are welcome by **9 April 2021**.

Comments should be sent to:

ENV-WASTE-FRAMEWORK-DIRECTIVE@ec.europa.eu