

Response ID ANON-75K5-1Z6Z-7

Submitted to Consultation on potential amendments to the Persistent Organic Pollutants (POPs) Regulation
Submitted on 2023-04-27 17:09:13

Introduction

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).org

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:

Environmental services association

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

England, Wales, Scotland, Northern Ireland

Waste limits (i) - Perfluorooctanoic acid (PFOA)

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

Yes (please specify how below)

How would this change impact (PFOA WL (i)):

We are unable to fully assess the implications as our members report that there is only very limited testing data but we would anticipate that there would be an increasing impact if the lower thresholds are adopted.

9 To what extent do you agree or disagree with our proposed waste limit for PFOA (1mg/kg for PFOA and its salts (or 0.025 mg/kg in AFFF); 40mg/kg for PFOA related compounds (or 1 mg/kg in AFFF))?

Strongly Disagree

10 Please explain the reasons for your answer to question 9, with reference to evidence and/or possible alternative options where relevant

Explain sentiment PFOA WL (i):

There is a great deal of uncertainty and a lack of data associated with the extent to which the lower thresholds of the lead option will impact on the wide range of waste streams potentially containing PFOS.

There would also be significant issues associated with analysis and testing of the waste streams highlighted to determine the POPs content. We do have some significant concerns relating to access to meaningful/feasible and reliable testing methods and facilities for testing POPs at some of the proposed concentration limits. The heterogenous nature of residual waste - in which many of the affect waste items will end up - will pose extreme difficulties to a

practical cost effective sampling programme. We are also aware that analytical techniques are prone to interference when used to analyse some of the waste streams highlighted.

We are aware that a study of many POPs presence in the environment has been undertaken and would suggest that until the output of that is available, option 3 should be adopted as it has previously been proposed for international consideration at BRS COPs.

11 There is a lack of concentration data for PFOA in waste in the UK so our assessment carries a level of uncertainty. Our evidence-based judgement is that PFOA is unlikely to be found at a level exceeding 1mg/kg in waste (excluding firefighting foams and hydraulic fluids). Are you aware of any evidence to suggest other sectors and/or products where PFOA would fall above or below the proposed waste concentration limit level? Please provide details if so including with reference to tonnages, concentration levels, ability to segregate waste, and impacts where possible.

There is a lack of concentration data for PFOA in waste in the UK so our assessment carries a level of uncertainty. Our evidence-based judgement is that PFOA is unlikely to be found at a level exceeding 1mg/kg in waste (excluding firefighting foams and hydraulic fluids). Are you aware of any evidence to suggest other sectors and/or products where PFOA would fall above or below the proposed waste concentration limit level? Please provide details if so including with reference to tonnages, concentration levels, ability to segregate waste, and impacts where possible.:

As we highlighted in question 10 - There is a great deal of uncertainty and a lack of data associated with the extent to which the lower thresholds of the lead option will impact on the wide range of waste streams potentially containing PFOS. Many of the waste items highlighted would be extremely difficult to segregate from the wider waste stream.

12 There are expected to be one-off impacts for organisations who hold PFOA containing waste to familiarise themselves with the new regulations and procedures, and the time taken to source appropriate disposal routes. Are you aware of how long (in hours) this will take, and any costs incurred? Please provide details if so.

There are expected to be one-off impacts for organisations who hold PFOA containing waste to familiarise themselves with the new regulations and procedures, and the time taken to source appropriate disposal routes. Are you aware of how long (in hours) this will take, and any costs incurred? Please provide details if so. :

With regard to POPs in waste upholstered domestic seating ESA's members advise that it has taken at least 6 months to identify and source appropriate disposal in some areas and this is with regulatory position statements in place to allow for interim processing measures to be undertaken initially. The costs have varied from £180/tonne to £380/tonne.

13 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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A huge range of businesses and organisations are likely to be affected given that PFOA is present in Clothes and Shoes, Carpets, Fabrics, PPE, Firefighting foams and electrical and electronic products.

14 For hydraulic fluids, are you aware of any evidence to suggest where PFOA falls above or below the proposed waste concentration limit level? Please provide details if so, including with reference to tonnages, concentration levels, ability to segregate waste and other impacts where possible.

For hydraulic fluids, are you aware of any evidence to suggest where PFOA falls above or below the proposed waste concentration limit level? Please provide details if so, including with reference to tonnages, concentration levels, ability to segregate waste and other impacts where possible. :

We are not aware of any data or evidence

15 The study team for the EU Impact Assessment suggest that detecting PFOA at a concentration limit of 1mg/kg is economically feasible. Are you aware of any evidence regarding potential financial cost to test and segregate waste streams at this level? Please provide details if so. Waste containing PFOA above the waste concentration limit will require high temperatures to destroy the POP, for example, in a hazardous waste incinerator or suitable cement kiln. Are you aware of any evidence regarding potential financial cost (gate fees) to destroy this waste? Please provide details if so

The study team for the EU Impact Assessment suggest that detecting PFOA at a concentration limit of 1mg/kg is economically feasible. Are you aware of any evidence regarding potential financial cost to test and segregate waste streams at this level? Please provide details if so Waste containing PFOA above the waste concentration limit will require high temperatures to destroy the POP, for example, in a hazardous waste incinerator or suitable cement kiln. Are you aware of any evidence regarding potential financial cost (gate fees) to destroy this waste? Please provide details if so :

ESA's members report that there would be significant issues associated with analysis and testing and potential segregation of the waste streams highlighted. We are aware that analytical techniques are prone to interference when used to analyse some of the waste streams highlighted.

16 Do you have any further evidence to suggest the suitability, or otherwise, of introducing waste concentration limits specific to one type of waste (such as aqueous film forming foams (AFFF))? Please provide details if so.

Do you have any further evidence to suggest the suitability, or otherwise, of introducing waste concentration limits specific to one type of waste (such as aqueous film forming foams (AFFF)? Please provide details if so. :

We have no evidence.

Waste limits (ii) - Perfluorohexane sulfonate (PFHxS)

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

I don't know

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

ESA's members may have to undertake an assessment of all of their firefighting systems at permitted facilities that have been required as part of fire prevention measures.

18 To what extent do you agree or disagree with our proposed waste limit for PFHxS (1mg/kg for PFHxS and its salts; 40mg/kg for PFHxS related compounds)?

Agree

19 Please explain the reasons for your answer to question 18, with reference to evidence and/or possible alternative options where relevant

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

We have no further evidence

20 There is a lack of concentration data for PFHxS in waste in the UK so our assessment carries a level of uncertainty. Our evidence-based judgement is that PFHxS is unlikely to be found at a level exceeding 1mg/kg in waste (excluding firefighting foams/hydraulic fluids). Are you aware of any evidence to suggest other sectors and/or products where PFHxS would fall above or below the proposed waste concentration limit level? Please provide details if so, including with reference to relevant waste streams, tonnages, concentration levels, ability to segregate waste, and other impacts where possible.

There is a lack of concentration data for PFHxS in waste in the UK so our assessment carries a level of uncertainty. Our evidence-based judgement is that PFHxS is unlikely to be found at a level exceeding 1mg/kg in waste (excluding firefighting foams/hydraulic fluids). Are you aware of any evidence to suggest other sectors and/or products where PFHxS would fall above or below the proposed waste concentration limit level? Please provide details if so, including with reference to relevant waste streams, tonnages, concentration levels, ability to segregate waste, and other impacts where possible. :

We are not aware of sufficient data to inform this position and until data is available we would suggest that the highest threshold is selected.

21 For hydraulic fluids, are you aware of any evidence to suggest where PFHxS falls above or below the proposed waste concentration limit level? Please provide details if so, including with reference to relevant waste streams, tonnages, concentration levels, ability to segregate waste, and other impacts where possible

For hydraulic fluids, are you aware of any evidence to suggest where PFHxS falls above or below the proposed waste concentration limit level? Please provide details if so, including with reference to relevant waste streams, tonnages, concentration levels, ability to segregate waste, and other impacts where possible :

We have no additional evidence.

22 There are expected to be one-off impacts for organisations who hold PFHxS containing waste to familiarise themselves with the new regulations and procedures, and the time taken to source appropriate disposal routes. Are you aware of how long (in hours) this will take, and any costs incurred? Please provide details if so.

There are expected to be one-off impacts for organisations who hold PFHxS containing waste to familiarise themselves with the new regulations and procedures, and the time taken to source appropriate disposal routes. Are you aware of how long (in hours) this will take, and any costs incurred? Please provide details if so. :

With regard to POPs in waste upholstered domestic seating it has taken at least 6 months for ESA members to identify and source appropriate disposal in some areas and this is with regulatory position statements in place to allow for interim processing measures to be undertaken initially. The costs have varied from £180/tonne to £380/tonne and that is using Municipal Energy Recovery Facilities. As the consultation document states that PFHxS requires very high temperatures to achieve destruction and there are a small number of these available in the UK so we would expect disposal options to be further limited and an order of magnitude more expensive

23 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.

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. :

We have no further evidence

24 The study team for the EU Impact Assessment suggest that Limits of Detection of 1 mg/kg is economically feasible. Are you aware of any evidence regarding potential financial cost to test and segregate waste streams at this level? Please provide details if so

The study team for the EU Impact Assessment suggest that Limits of Detection of 1 mg/kg is economically feasible. Are you aware of any evidence regarding potential financial cost to test and segregate waste streams at this level? Please provide details if so :

We have no further evidence

25 Waste containing PFHxS above the waste concentration limit will require high temperatures to destroy the POP, for example, in a hazardous waste incinerator or suitable cement kiln. Are you aware of any evidence regarding potential financial cost (gate fees) to destroy this waste? Please provide details if so.

Waste containing PFHxS above the waste concentration limit will require high temperatures to destroy the POP, for example, in a hazardous waste incinerator or suitable cement kiln. Are you aware of any evidence regarding potential financial cost (gate fees) to destroy this waste? Please provide details if so. :

The number of facilities is very small and so we would suggest that the DEFRA could approach both hazardous waste incinerators directly and engage with them along with the small number of cement kilns in the UK.

26 Do you have any further evidence to suggest the suitability, or otherwise, of introducing waste concentration limits specific to one type of waste (such as aqueous film forming foams (AFFF))? Please provide details if so.

Do you have any further evidence to suggest the suitability, or otherwise, of introducing waste concentration limits specific to one type of waste (such as aqueous film forming foams (AFFF))? Please provide details if so. :

We have no further evidence

Waste limits (iii) - Short Chain Chlorinated Paraffins (SCCPs)

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

I don't know

28 To what extent do you agree or disagree with our proposed waste limit for SCCPs (1,500 mg/kg)?

I don't know

29 Please explain the reasons for your answer to question 28, with reference to evidence and/or possible alternative options where relevant

Please explain the reasons for your answer to question 28, with reference to evidence and/or possible alternative options where relevant:

Given the evidence presented in Annex A suggests that SCCP's are present in so many everyday items and in items like adhesives sealants and paints are ubiquitous it will be extremely difficult to segregate and test every potential source of SCCP containing material. These adhesives sealants and paints have a very long lifespan and therefore are likely to be in use for an extended period of time. We therefore suggest that the current limit is retained.

30 Are you aware of any evidence to help determine whether SCCPs may fall above or below the waste concentration limit of 1500mg/kg in the UK? Please provide details if so, including with reference to relevant waste streams, tonnages, concentration levels, ability to segregate wastes, and other impacts where possible.

Are you aware of any evidence to help determine whether SCCPs may fall above or below the waste concentration limit of 1500mg/kg in the UK? Please provide details if so, including with reference to relevant waste streams, tonnages, concentration levels, ability to segregate wastes, and other impacts where possible. :

We have no evidence.

31 Do you have evidence of the tonnage of waste containing SCCPs in the UK and how they are currently disposed of (landfill, recycling, Energy from Waste)? Please provide details if so.

Do you have evidence of the tonnage of waste containing SCCPs in the UK and how they are currently disposed of (landfill, recycling, Energy from Waste)? Please provide details if so. :

We have no evidence.

32 Are you aware of any anticipated costs for disposing of SCCPs contaminated waste (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 provide any supporting evidence.

Are you aware of any anticipated costs for disposing of SCCPs contaminated waste (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 provide any supporting evidence. :

We are not aware of the anticipated costs for disposing. The volumes of these waste streams could be very extensive and may therefore utilise or exceed existing EFW disposal capacity meaning that costs would escalate considerably as demand outstrips supply.

33 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.

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. :

Given the ubiquitous nature of the items listed in Annex A we would assume all organisations will be impacted by these proposals.

34 Are you aware of any evidence to suggest that a lower waste concentration limit would be achievable in the UK with regards to technical and economic feasibility? Please provide details if so, including with reference to current and/or future limits of detection for SCCPs in waste.

Are you aware of any evidence to suggest that a lower waste concentration limit would be achievable in the UK with regards to technical and economic feasibility? Please provide details if so, including with reference to current and/or future limits of detection for SCCPs in waste. :

No but there is a real risk that the disposal volumes may be so extensive it may take up or exceed existing EFW disposal options meaning that costs will escalate considerably as demand outstrips supply.

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):

Given the data in table A of Annex A suggests that even with the current limit of 1000mg/kg 10% of all WEEE sampled exceeded that limit we suggest that this will have a large impact on existing WEEE collection and treatment systems.

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

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

We believe the impacts of lowering this threshold will be significant. We are unsure as to what benefits the staggered approach brings.

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.

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. :

We do not understand the argument that this will have no / limited additional impact in that the testing costs alone will be significant. Wider market capacity of well designed and maintained plastic separation facilities is limited. (Unless the regulator takes the view that as the number of samples exceeding the proposed threshold is so low that no additional sampling / testing/ separation / EFW disposal is required.)

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.

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.:

We have no evidence.

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.

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. :

We have no evidence.

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.

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.:

ELV and WEEE processors will be impacted.

For PBDE level in WEEE plastics, the change proposed could increase the quantity of WEEE being sent to EfW over recycling.

Waste Limits (v) - Pentachlorophenol (PCP)

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

Yes (please specify how below)

importance reason PCP WL (v):

43 To what extent do you agree or disagree with our proposed waste limit for PCP (100 mg/kg)?

I don't know

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

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

Wood does not appear to be an issue and we are unaware of the impact of this limit given the specialised use of PCP in textiles.

45 Based on current evidence, we anticipate the economic costs of introducing the proposed waste limit for PCP in GB to be none/minimal. Are you aware of any evidence to either support or oppose this view? Please provide details if so, including with reference to gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes etc.

Based on current evidence, we anticipate the economic costs of introducing the proposed waste limit for PCP in GB to be none/minimal. Are you aware of any evidence to either support or oppose this view? Please provide details if so, including with reference to gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes etc. :

We have no evidence

46 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.

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.:

We have no evidence

Waste limits (vi) – Dioxins, Furans, and dioxin-like PCBs

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

Yes (please specify how below)

importance reason dioxins WL (vi):

There is potential for impact on the management of residues from thermal combustion of waste.

48 To what extent do you agree or disagree with our proposed position to include dioxin-like PCBs in the dioxins and furans waste concentration limit?

I don't know

49 Please explain the reasons for your answer to question 48, with reference to evidence and/or possible alternative options where relevant

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

Data provided by ESA's MSW EFW operators suggests the lead policy proposal limit will not impact on the management of IBA or APC residues. There does however, remain some uncertainty on the impact across the sector and the evidence set out in Annex A is inconclusive. It would seem prudent to retain current POPs limits until further evidence is obtained.

50 To what extent do you agree or disagree with our proposed waste concentration limit for dioxins, furans, and dioxin-like PCBs (0.005 mg TEQ/kg, including dioxin-like PCBs)?

I don't know

51 Please explain the reasons for your answer to question 50, with reference to evidence and/or possible alternative options where relevant

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

The evidence as set out in Annex A is inconclusive, therefore, until further testing is undertaken and evidence is available we believe that the current limits should remain in place

52 Based on current evidence, we anticipate the economic impacts of decreasing the dioxins and furans waste limit to 0.005 TEQ/kg in GB to have limited impacts on biomass incinerator APCR and no impacts on domestic ash. Are you aware of any evidence to either support or oppose this view? Please provide details if so, including with reference to relevant waste streams, tonnages, concentration levels and impacts where possible.

Based on current evidence, we anticipate the economic impacts of decreasing the dioxins and furans waste limit to 0.005 TEQ/kg in GB to have limited impacts on biomass incinerator APCR and no impacts on domestic ash. Are you aware of any evidence to either support or oppose this view? Please provide details if so, including with reference to relevant waste streams, tonnages, concentration levels and impacts where possible. :

Data provided by ESA's MSW EFW operators suggests the lead policy proposal limit will not impact on the management of IBA or APC residues. There does however, remain some uncertainty on the impact across the sector and the evidence set out in Annex A is inconclusive. It would seem prudent to retain current POPs limits until further evidence is obtained.

The ultimate impact on IBA reuse is unknown. Even though current results indicate that IBA is ostensibly free from POP's, as the volumes of POP's waste going to EFW increase there is a risk that IBA is ultimately affected and with it the ability to recycle the material. If this were the case - and landfilling of IBA became necessary it would result in a significant additional cost burden for local authorities.

53 The EU Impact Assessment identifies approximately 20 waste streams where dioxins and furans can be found, primarily in waste streams related to combustion activities. Are you aware of any other waste streams that are likely to be impacted by a lower waste concentration limit value? Please provide details if so.

The EU Impact Assessment identifies approximately 20 waste streams where dioxins and furans can be found, primarily in waste streams related to combustion activities. Are you aware of any other waste streams that are likely to be impacted by a lower waste concentration limit value? Please provide details if so. :

We have no additional evidence.

54 Are there any additional costs you anticipate for disposing of PCDD/F waste under the proposed waste limit (such as gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes etc)? Please provide details if so.

Are there any additional costs you anticipate for disposing of PCDD/F waste under the proposed waste limit (such as gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes etc)? Please provide details if so. :

We have no additional evidence.

55 There is limited analytical information available on the concentration of dioxin- like PCBs in waste and the amount of waste that would be diverted to different treatments under the lead waste limit option. Are you aware of any evidence regarding relevant waste streams, tonnages, concentration levels, ability to segregate waste, and associated costs (such as gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes etc)? Please provide details if so.

There is limited analytical information available on the concentration of dioxin- like PCBs in waste and the amount of waste that would be diverted to different treatments under the lead waste limit option. Are you aware of any evidence regarding relevant waste streams, tonnages, concentration levels, ability to segregate waste, and associated costs (such as gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes etc)? Please provide details if so. :

We have no additional evidence.

56 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.

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.:

We have no additional evidence.

Waste limits (vii) - Dicofof

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

I don't know

importance reason dicofof WL vii:

58 To what extent do you agree or disagree with our proposed waste limit for dicofof (50mg/kg)?

I don't know

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

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

We have no additional evidence.

60 Based on current evidence, we anticipate the economic costs of lowering the dicofof waste limit in GB to be zero or minimal. Are you aware of any evidence to either support or oppose this view, including with reference to costs such as gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes etc)? Please provide details if so.

Based on current evidence, we anticipate the economic costs of lowering the dicofof waste limit in GB to be zero or minimal. Are you aware of any evidence to either support or oppose this view, including with reference to costs such as gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes etc)? Please provide details if so. :

We have no additional evidence.

61 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.

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.:

We have no additional evidence.

Waste limits (viii) – Hexabromocyclododecane (HBCDD)

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

Yes (please specify how below)

importance reason HCB WL (viii):

We would agree with the analysis in Annex A that there will be a low level of understanding of the need to segregate C&D waste EPS and XPS insulation panels and manage them and POP's containing waste. Whilst many larger construction firms may be aware of the requirements and be used to managing problematic materials such as POPs, contaminated soils and asbestos, many smaller operators and DIY enthusiasts are unlikely to be aware of these requirements.

63 To what extent do you agree or disagree with our proposed waste limit for HBCDD (500 mg/kg)?

I don't know

64 Please explain the reasons for your answer to question 63, with reference to evidence and/or possible alternative options where relevant

Please explain the reasons for your answer to question 63, with reference to evidence and/or possible alternative options where relevant:

We have no evidence

65 Based on current evidence, we anticipate the economic costs of lowering the HBCDD waste limit in GB to be minimal for all waste streams. Are you aware of any evidence to either support or oppose this view, including with reference to costs such as incineration gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes etc? Please provide details if so.

Based on current evidence, we anticipate the economic costs of lowering the HBCDD waste limit in GB to be minimal for all waste streams. Are you aware of any evidence to either support or oppose this view, including with reference to costs such as incineration gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes etc? Please provide details if so.:

We have no evidence

66 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.

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.:

We have no evidence

Waste limits (ix) – UV328, Dechlorane Plus, and Methoxychlor

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

I don't know

importance reason WL (ix):

68 Are you aware of any evidence to suggest a waste concentration limit value for UV-328 that would be suitable for adoption within GB if and/or when this substance is adopted as a POP by the Stockholm Convention? Please provide details if so, including with reference to data sources, timescales, tonnages impacted and potential costs (including incineration gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes), if known.

Are you aware of any evidence to suggest a waste concentration limit value for UV-328 that would be suitable for adoption within GB if and/or when this substance is adopted as a POP by the Stockholm Convention? Please provide details if so, including with reference to data sources, timescales, tonnages impacted and potential costs (including incineration gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes), if known. :

We have no evidence

69 Are you aware of any evidence to suggest a waste concentration limit value for Methoxychlor that would be suitable for adoption within GB if and/or when this substance is adopted as a POP by the Stockholm Convention? Please provide details if so, including with reference to data sources, timescales, tonnages impacted and potential costs (including incineration gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes), if known.

Are you aware of any evidence to suggest a waste concentration limit value for Methoxychlor that would be suitable for adoption within GB if and/or when this substance is adopted as a POP by the Stockholm Convention? Please provide details if so, including with reference to data sources, timescales, tonnages impacted and potential costs (including incineration gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes), if known. :

We have no evidence

70 Are you aware of any evidence to suggest a waste concentration limit value for Dechlorane Plus that would be suitable for adoption within GB (if and/or when this substance is adopted as a POP by the Stockholm Convention)? Please provide details if so, including with reference to data sources, timescales, tonnages impacted and potential costs (including incineration gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes), if known.

Are you aware of any evidence to suggest a waste concentration limit value for Dechlorane Plus that would be suitable for adoption within GB (if and/or when this substance is adopted as a POP by the Stockholm Convention)? Please provide details if so, including with reference to data sources, timescales, tonnages impacted and potential costs (including incineration gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes), if known. :

We have no evidence

Waste limits (x) - Other POPs

71 Are you aware of any evidence to suggest that any of the other waste concentration limits listed in the POPs Regulation should be amended in upcoming or future legislation? Please provide details if so, including with reference to specific substances, data sources,

timescales, tonnages impacted and potential financial costs (including incineration gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes), if known.

Are you aware of any evidence to suggest that any of the other waste concentration limits listed in the POPs Regulation should be amended in upcoming or future legislation? Please provide details if so, including with reference to specific substances, data sources, timescales, tonnages impacted and potential financial costs (including incineration gate fees, administrative costs or time taken to familiarise with the requirements and sourcing disposal, testing, segregation, storage of wastes), if known. :

We have no evidence

SECTION TWO: Removal of existing specific exemptions (or 'derogations') for four POPs

72 Are any of the exemptions proposed for removal of particular importance to you and/or the organisation you represent?

(iii) PFOA exemption 5e;

73 If you checked any of the exemptions in question 72, please specify how their removal would impact you or your organisation

If you checked any of the exemptions in question 72, please specify how their removal would impact you or your organisation:

Some ESA members do use high-performance, corrosion-resistant gas filter membranes, water filter membranes, industrial waste heat exchanger equipment and industrial sealants capable of preventing leakage of PM2.5 particulates and so the proposed removal of this exemption may impact these uses. ESA's members are in discussion with their suppliers to see if any of them still require the use of PFOA in the manufacture of the PTFE and PVDF to clarify whether alternatives have been found.

74 To what extent do you agree or disagree with our proposed position (removal of the above-listed exemptions)?

I don't know

75 Please explain the reasons for your answer to question 74, with reference to evidence and/or possible alternative options where relevant

Please explain the reasons for your answer to question 74, with reference to evidence and/or possible alternative options where relevant:

We have no additional evidence

76 Are you/your organisation currently making use of any of these exemptions?

exemptions still being used - (i) PFOS exemption 4:

I don't know

exemptions still being used - (ii) SCCPs exemption 1:

I don't know

exemptions still being used - (iii) PFOA exemption 5e:

I don't know

exemptions still being used - (iv) PFOA exemption 7:

I don't know

exemptions still being used - (v) DecaBDE exemption 3(a):

I don't know

exemptions still being used - (vi) DecaBDE exemption 3(b)(i):

I don't know

77 If you/your organisation are still making use of this exemption(s), what efforts are being made to transition away from reliance on this substance and this exempted use? If multiple substances and/or exemptions: please detail for each one. In your answer, you may like to refer to why this exemption is still required, the estimated quantity of production and/or use of this substance, potential alternative substances and/or approaches, why an alternative substance or approach cannot be used, and the practicalities and/or costs of transition.

If you/your organisation are still making use of this exemption, what efforts are being made to transition away from reliance on this substance and this exempted use? If multiple substances and/or exemptions: please detail for each one. In your answer, you may like to refer to why this exemption is still required, the estimated quantity of production and/or use of this substance, potential alternative substances and/or approaches, why an alternative substance or approach cannot be used, and the practicalities and/or costs of transition. :

We are not aware that ESA members make use of these exemptions but some have alluded to possible use by their suppliers.

78 If you/your organisation are still making use of this exemption, when do you anticipate no longer requiring use of this exemption? If multiple substances and/or exemptions: please detail for each one.

If you/your organisation are still making use of this exemption, when do you anticipate no longer requiring use of this exemption? If multiple substances and/or exemptions: please detail for each one. :

We are not aware that ESA members make use of these exemptions but some have alluded to possible use by their suppliers.

UTC exempted levels (i) – proposed removal of exemption for PFOA for use in transported isolated intermediate

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

I don't know

80 If you answered yes to question 79, how would it impact you or your organisation? Please provide details, including any supporting evidence or information on potential financial costs.

If yes, how would it impact you or your organisation? Please provide details, including any supporting evidence or information on potential financial costs. :

We have no additional evidence

81 To what extent do you agree or disagree with our proposal to remove this exemption?

I don't know

82 Please explain the reasons for your answer to question 81, with reference to evidence and/or possible alternative options where relevant

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

We have no additional evidence

83 Are you aware of how many organisations may be impacted by this proposal? Please provide details if so, including any references to organisation size (micro, small, medium or large).

Are you aware of how many organisations may be impacted by this proposal? Please provide details if so, including any references to organisation size (micro, small, medium or large). :

We have no additional evidence

UTC exempted levels (ii) – proposed amendments to exemption for PFOA in PTFE micropowders

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

I don't know

85 If you answered yes to question 84, how would it impact you or your organisation? Please provide details, including any supporting evidence or information on potential financial costs.

If yes, how would it impact you or your organisation? Please provide details, including any supporting evidence or information on potential financial costs. (UTC ii) :

We have no additional evidence

86 To what extent do you agree or disagree with our proposals as stated above? Please explain the reasons for your answer, with reference to evidence and/or possible alternative options where relevant

I don't know

To what extent do you agree or disagree with our proposals as stated above? Please explain the reasons for your answer, with reference to evidence and/or possible alternative options where relevant UTC ii:

We have no additional evidence

UTC exempted levels (iii) – call for evidence regarding HCB

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

I don't know

88 If you answered yes to question 87, how would it impact you or your organisation? Please provide details, including any supporting evidence or information on potential financial costs?

If you answered yes to question 87, how would it impact you or your organisation? Please provide details, including any supporting evidence or information on potential financial costs? :

We have no additional evidence

89 Are you aware of any evidence to suggest that a UTC exemption for HCB is needed within the UK? If yes, please provide details on your answer including any supporting evidence or information on potential financial costs.

Are you aware of any evidence to suggest that a UTC exemption for HCB is needed within the UK? If yes, please provide details on your answer including any supporting evidence or information on potential financial costs. :

We have no additional evidence

90 Are you aware of any evidence to suggest that a UTC exemption to allow 10 mg/kg (0.001 % by weight) would be suitable for adoption within GB? Please provide details if so.

Are you aware of any evidence to suggest that a UTC exemption to allow 10 mg/kg (0.001 % by weight) would be suitable for adoption within GB? Please provide details if so. :

We have no additional evidence

91 Are you aware of any evidence to suggest that a UTC exemption of another value would be suitable for adoption within GB? Please provide details if so.

Are you aware of any evidence to suggest that a UTC exemption of another value would be suitable for adoption within GB? Please provide details if so. :

We have no additional evidence

UTC exempted levels (iv) – call for evidence regarding PCP

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

I don't know

93 If you answered yes to question 92, how would it impact you or your organisation? Please provide details, including any supporting evidence or information on potential financial costs.

If you answered yes to question 92, how would it impact you or your organisation? Please provide details, including any supporting evidence or information on potential financial costs.:

We have no additional evidence

94 Are you aware of any evidence to suggest that a UTC exemption for PCP is needed within the UK? Please provide further details if so, including any supporting evidence or information on potential financial costs.

Are you aware of any evidence to suggest that a UTC exemption for PCP is needed within the UK? Please provide further details if so, including any supporting evidence or information on potential financial costs.:

We have no additional evidence

95 Are you aware of any evidence to suggest that a UTC exemption to allow 5 mg/kg (0.0005 % by weight) would be suitable for adoption within GB? Please provide details if so.

Are you aware of any evidence to suggest that a UTC exemption to allow 5 mg/kg (0.0005 % by weight) would be suitable for adoption within GB? Please provide details if so. :

We have no additional evidence

96 Are you aware of any evidence to suggest that a UTC exemption of another value would be suitable for adoption within GB? Please provide details if so.

Are you aware of any evidence to suggest that a UTC exemption of another value would be suitable for adoption within GB? Please provide details if so. :

We have no additional evidence

UTC exempted levels (v) – Call for evidence regarding other POPs

97 For any of the other POPs that currently do not have UTC exemptions listed in the POPs Regulation, are you aware of any evidence to suggest that a UTC exemption needs to be introduced? Please provide details if so, including any references to potential impacts and/or financial costs where relevant.

For any of the other POPs that currently do not have UTC exemptions listed in the POPs Regulation, are you aware of any evidence to suggest that a UTC exemption needs to be introduced? Please provide details if so, including any references to potential impacts and/or financial costs where relevant. :

We have no additional evidence

98 For any of the other POPs that already have UTC exemptions listed in the POPs Regulation, are you aware of any evidence to suggest that these need to be amended? Please provide details if so.

For any of the other POPs that already have UTC exemptions listed in the POPs Regulation, are you aware of any evidence to suggest that these need to be amended? Please provide details if so. :

We have no additional evidence

99 For any of the substances that could soon be adopted as POPs (UV-328, DP, Methoxychlor), are you aware of any evidence to suggest that a UTC exemption would need to be introduced alongside introduction of these substance/s to the POPs Regulation? Please provide details if so.

For any of the substances that could soon be adopted as POPs (UV-328, DP, Methoxychlor), are you aware of any evidence to suggest that a UTC exemption would need to be introduced alongside introduction of these substance/s to the POPs Regulation? Please provide details if so. :

We have no additional evidence

SECTION FOUR: Potential addition of Toxic Equivalency Factor (TEF) values for a POP

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

I don't know

101 If you answered yes to question 100, how would it impact you or your organisation? Please provide details, including any supporting evidence or information on potential financial costs, where relevant.

If you answered yes to question 100, how would it impact you or your organisation? Please provide details, including any supporting evidence or information on potential financial costs, where relevant.:

We have no additional evidence

102 Are you aware of any evidence to suggest that a TEF value for DL-PCBs would be needed within GB? Please provide details if so.

Are you aware of any evidence to suggest that a TEF value for DL-PCBs would be needed within GB? Please provide details if so.:

We have no additional evidence

103 Are you aware of any evidence to suggest that a TEF value for DL-PCBs as set out in the above table would be suitable for adoption within GB? Please provide details if so.

Are you aware of any evidence to suggest that a TEF value for DL-PCBs as set out in the above table would be suitable for adoption within GB? Please provide details if so.:

We have no additional evidence

104 Are you aware of any evidence to suggest that a different TEF value for DL-PCBs would be suitable for adoption within GB? Please provide details if so.

Are you aware of any evidence to suggest that a different TEF value for DL-PCBs would be suitable for adoption within GB? Please provide details if so.:

We have no additional evidence

105 Are you aware of any evidence to suggest that any other TEF values as listed in the POPs Regulation need to be amended? Please provide details if so.

Are you aware of any evidence to suggest that any other TEF values as listed in the POPs Regulation need to be amended? Please provide details if so.:

We have no additional evidence

SECTION FIVE: Amendments to Annex V including to Maximum Concentration Limits (for hazardous waste landfill) for several POPs

106 Are the new European Waste Catalogue (EWC) code and Maximum Concentration Limits proposals (1, 2, and 3) of particular importance to you and/or the organisation you represent?

Yes

107 If you answered yes to question 106, how would they impact you or your organisation? Please provide details, including any supporting evidence or information on potential financial costs, where relevant.

Are you aware of any evidence to suggest that the new EWC code and Maximum Concentration Limit proposals (1, 2 and 3) as set out above would be suitable for adoption within GB? Please provide details if so.:

ESA's members operate hazardous waste landfills

108 Are you aware of any evidence to suggest that the new EWC code and Maximum Concentration Limit proposals (1, 2 and 3) as set out above would be suitable for adoption within GB? Please provide details if so.

Are you aware of any evidence to suggest that the new EWC code and Maximum Concentration Limit proposals (1, 2 and 3) as set out above would be suitable for adoption within GB? Please provide details if so.:

We have no additional evidence

109 Are you aware of any evidence to suggest that the new EWC code and Maximum Concentration Limit proposals (1, 2 and 3) as set out above would not be suitable for adoption within GB? Please provide details if so, including details of any potential financial costs where relevant.

Are you aware of any evidence to suggest that the new EWC code and Maximum Concentration Limit proposals (1, 2 and 3) as set out above would not be suitable for adoption within GB? Please provide details if so, including details of any potential financial costs where relevant.:

We have no additional evidence

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.

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

ESA and its Members are fully supportive of the need to ensure safe, effective and appropriate management and disposal of POPs contaminated waste streams and we support's the UK's ambition to amend POPs regulation to maintain the UK's compliance with the Stockholm Convention, and to ensure waste is disposed of safely, and with minimal environmental impact.

Implications and Stakeholder engagement:

Increasing the scope of POPs being regulated will lead to additional, potentially significant, operational and compliance challenges. It is therefore vital to ensure continued engagement between industry, government and regulators to ensure effective communication and understanding of the implications of any changes. The stakeholder and resolver groups set up to support changes required to the management of POPs contaminated waste uphomed domestic seating set a good model to follow for the future changes. It is also important that transitional arrangements - such as regulatory position statements - are utilised where appropriate to enable a flexible approach to implementation of any changes.

Data and Analytical Issues:

For many POPs and waste streams of potential interest there are very large gaps in evidence base and assessment techniques. There is a current lack of reliable data and evidence to inform what policy decisions and depending on the policy options chosen the proposed changes could have a significant impact on the types and quantities of wastes designated as POPs wastes.

In order to understand the impact of some of the proposed changes it is important that we have greater understanding of waste characterisation and classification. The current absence of a consistent, approach and expectation across the sectors, is a significant barrier to assessing the implications of decreasing POPs thresholds. Without this it is not feasible or realistic to assess the impact of the new limits including on waste flows, costs and business viability among many other potential areas of impact or to implement or enforce thresholds for the new lower limits for POPs proposed within this consultation.

Lack of confidence in waste assessment and characterisation methods may also have impacts on trans frontier shipments and segregation of POPs components from mixed wastes may become problematic or impossible. This is an area which we consider needs to be explored further before committing to any specific thresholds.

It would therefore seem prudent to ensure sufficient data and evidence is obtained before making substantial changes to the POPs regulations. Any additional requirements proposed must be based on reliable methodologies and a sound evidence base.

We do have some significant concerns relating to access to meaningful/feasible and reliable testing methods and facilities for testing POPs at some of the proposed concentration limits. The heterogenous nature of residual waste will pose extreme difficulties to a practical cost effective sampling programme.

For example:

- WEEE and other waste streams such as mixed fractions into RDF are not homogeneous streams, therefore there is an absence of testing protocols, assessment would not be practicable or reliable.

- For the construction industry, which is predominantly made up of sole traders and SMEs, there are already substantial issues in segregation and classification of waste streams. This would need to be addressed and the onus not placed on waste management companies to effect the required changes.

WM3:

We think there could also be additional clarity in the EA's guidance WM3 on the linkages between 'hazardous' waste and 'POPs contaminated waste'. Currently, WM3 does not link to any change in definition or thresholds for POPs to confirm whether something is hazardous by virtue of POPs.

Impact on Energy from Waste

Energy from Waste (EfW) provides a safe and reliable solution for managing non-recyclable residual waste, hazardous and clinical waste, while also recovering metals for recycling and aggregates which are then used in construction.

Keeping in mind the difficulties around waste classification and variable inputs from multiple sources, we would need to take a precautionary approach to implementing these proposed regulations, which would have consequences for EfW Facilities, notably on plant capacity, operations, testing protocols and permit status. More plastic would likely be diverted into EfW as a result, impacting flue gas emissions from the stack.

For EfW, POP's waste is in the main shredded before entering a facility, therefore there are challenges with managing POPs containing materials which are mixed in with the residual waste inputs. It is extremely difficult to separate out POP's containing wastes from residual waste and EfWs will ultimately be dependent on Local Authorities and householders to ensure relevant items are removed from the waste. This would necessitate considerable effort to both educate the public and provide alternative solutions for the relevant items.

Enforcement

Due to ongoing challenges in delays with determination of environmental permits, at times over 12 months, EA resourcing is a concern for industry when taking into account the scale of the wider waste sector reforms and the additional pressures and responsibilities placed on the EA. The regulator must also focus on the enforcement and upskilling of the industry where necessary in relation to waste classification, ensuring appropriate application at all levels and not relying on the waste companies to enforce and take on the liability and risk of waste producer decisions.

Additional Information on Current Testing Capabilities (provided by an ESA Member Testing Laboratory):

POPs analysis of RDF/SRF, WEEE and IBA:

Current Status:

There are several labs that are servicing the EfW market in the UK. All labs have various ISO17025 accreditation that ensures that the marketplace is provided with robust and defensible data to either comply with legislation or for decision making (import/export/operations).

RDF/SRF – A complex, heterogenous blend of mainly domestic waste. On receipt of 20L sample, the laboratory will process the sample to make it homogenous via shredding, drying, and sieving.

When processing is complete, the laboratory will carry out standard tests such as calorific value, heavy metals, proximate and ultimate analysis. Each test uses approx. 1gm of processed material.

The results are generally expressed in % (metals mg/kg, but results can be high).

WEEE Waste - A complex, heterogenous blend of electrical and electronics waste. This can have significant levels of plastics and polymers. On receipt of 20L sample, the laboratory will process the sample to make it homogenous via shredding, drying and sieving.

When processing is complete, the laboratory will carry out standard tests such as calorific value, heavy metals, proximate and ultimate analysis. Each test uses approx. 1gm of processed material.

The results are generally expressed in % (metals mg/kg, but results can be high).

IBA Waste - A more homogenous sample (which can be ground on sample receipt if required). On receipt of 1kg sample, the laboratory can progress with all analysis without the need to process.

The laboratory will carry out standard tests such as LOI, heavy metals, proximate and ultimate analysis. Each test uses approx. 1gm of processed material.

The results are generally expressed in % (metals mg/kg, but results can be in %).

ISO 17025 Accreditation (UKAS)

It is important to know that laboratories that participate in UKAS accreditation have to provide robust and defensible data to their customers. This is achieved by taking part in proficiency testing schemes (Ring Tests), analysing certified reference materials (CRMs), and performing suitable quality control checks on all analysis.

Proficiency testing schemes and certified reference materials are available for general RDF/SRF analysis. The laboratory will receive a 'processed' sample and carry out general analysis such as calorific value, heavy metals, proximate and ultimate analysis. It should be noted that the processed sample has been dried and ground, and is fully homogenous.

The participation of proficiency testing schemes and the additional analysis of certified reference materials ensures that analytical equipment is calibrated correctly and quality control systems are running correctly.

POPs analysis

The UK is currently a provider of basic POPs analysis to the UK waste industry. The analysis is carried out on high end instrumentation (GC/MS/MS or LC/MS/MS) which costs approx. £200K per instrument. Analysis can be provided for PCB, Dioxins, PBB, PBDE, HBCDD, PCN, OC Pesticides, PFAS, etc. These instruments are reporting 'trace levels' at ug/kg and sometimes ng/kg. They use a technique called 'isotope dilution', where labelled analytical standards are used to help quantify levels of POPs.

It should be noted that these instruments analyse a sample size of approx. 10ug/L, therefore having representative, and homogenous samples is critical.

Issues with Current Capabilities

At the moment in the UK, there is no accredited POPs analysis on RDF/SRF, or WEEE waste streams.

UK waste producers are sending work overseas for this analysis. Within mainland Europe, there is little evidence of ISO 17025 accreditation on these tests.

Data provided by UK labs isn't reproducible, due to the way labs are 'processing' samples, sometimes removing plastics to ensure no damage is caused to the instruments.

There are no proficiency testing schemes or certified reference materials for POPs in RDF/SRF and WEEE waste samples, so labs actually have no reference information for these matrices.

Waste producers aren't being representative in sampling.

The matrices offer different challenges – RDF/SRF has surface contamination of POPs, where as WEEE waste has internal contamination of POPs.

The UK's current laboratory capability does not appear to fit for purpose to service this market.

Consideration of next steps for testing:

A standard sampling method could be considered for use by RDF/SRF & WEEE Waste producers, to include information on sampling frequency and standardised analytical methods.

Laboratories could consider undertaking suitable analytical method development to ensure that reproducible RDF/SRF and WEEE POPs data.

Laboratories could consider carrying out ring tests with other labs to ensure that analytical methods are calibrated within this industry.

Laboratories could consider liaising with certified reference materials producers and proficiency testing schemes to produce suitable materials / schemes for labs to participate, and eventually seek ISO 17025 accreditation

The above would help standardise analytical methods within the waste markets.

Consultee Feedback on the Online Survey

111 Overall, how satisfied are you with our online consultation tool?

Satisfied

112 Please give us any comments you have on the tool, including suggestions on how we could improve it.

Please give us any comments you have on the tool, including suggestions on how we could improve it. :

Some of the question numbers didn't align with those in the consultation document.