



Persistent Organic Pollutants (POPs) & SOFA's

Summary

What is happening:

- Waste domestic seating contains POPs
- The law requires these to be destroyed (incinerated)
- Landfill is prohibited
- We (Chemicals Team) are writing compliance letters (to be dispatched during August 2022).

To:

~ Local authorities, HWRC operators, landfill and waste incinerator operators

Evidence - Waste domestic seating

Waste domestic seating

- Includes any upholstered item of seating of a domestic type from any source (sofas, armchairs, stools, dining chairs, etc)
- EA & Defra studies concluded that . . .
 - ~ POP Flame retardants found mainly on rear of covers, also in foams
 - ~ Very large quantities relative to other waste streams
 - ~ 4 different POPs – PentaBDE, TetraBDE, HBCDD, DecaBDE
- Law has required destruction for some time . .

Engagement

Defra led Stakeholder group, included representatives from:

- Local authorities
- Manufacturers
- Waste industry
- Charities/Reuse sector

EA led Guidance sub-group

Fully involved, informed, and consulted at each stage ?

Compliance

Three phases of Compliance Activity:

- Compliance letters – advice and guidance, and requesting confirmation of compliance
- ‘Enhanced’ and more targeted support (from January 2023)
- Enforcement (from April 2023)
- Compliance will be led by newly formed Pan Area Chemical Team (PACT)
 - ~ Support by internal and external ‘resolver’ (?) groups

Key issues

- Waste description
- Segregation
- Separation from mixed waste
- Compaction
- Separation of materials from items
- Identification of POPs containing items
- Preparation for incineration

How should I describe and classify items of upholstered domestic seating waste on waste transfer notes?

- Items of upholstered domestic seating waste that may contain POPs must be
 - Described as items of '*domestic seating waste containing POPs*' on waste transfer notes
 - Classified with list of waste code 20 03 07, and
- The relevant chemicals should also be identified on the document.
 - Decabromodiphenyl Ether (DecaBDE) (the most common), Hexabromocyclododecane (HBCDD), Pentabromodiphenyl Ether (PentaBDE), Tetrabromodiphenyl Ether (TetraBDE)
 - Antimony Trioxide, Medium Chain Chlorinated Paraffins (MCCP)

Do I have to segregate items of waste domestic seating?

- Yes, you must take all reasonable steps to avoid mixing these items with other waste during waste production, storage, collection, and treatment. They should not be mixed with other waste, for example in a skip, on a vehicle, or a bay at a Household Waste Recycling Centre.
- You should ensure that suitable arrangements are put in place to ensure that your business and your customers segregate these items.
- You can collect them on the same vehicle with other waste if you keep them separate, to remove the risk of contamination of other waste with POPs.
- If you do mix, POPs containing waste with non-POPs waste it must all be managed as POPs waste. You must still destroy the POPs even if the mixing has diluted the POPs to below the concentration limit.

Can I separate items of upholstered domestic seating from mixed waste (e.g., a skip)?

- Yes, if you can demonstrate that they have not contaminated the other waste.
- Contamination may occur if the item is damaged and the underside of the seating cover is exposed and in contact with other waste, or if pieces of foam, cover, lining, or wadding material are released from the item.
- If any contamination has occurred (or you are unsure if it has), for example if textile or foam has been released, or if you are unable to remove, the item then the whole mixed waste should be managed as POPs waste.
- You should also review your procedures and take steps to ensure that further mixing does not occur in future.

Can I compact upholstered domestic seating waste?

- You may compact upholstered domestic seating waste for storage or transport provided you have procedures in place to prevent, contain and collect any releases of POPs contaminated material and dust, that compaction may generate, to send for destruction.

Can I separate the materials containing POPs from the other materials?

- Yes, individual items can be manually dismantled to remove **all** the textiles and foam for incineration. The remaining metal, wooden and plastic frame can then be recycled or reused (e.g., re-upholstered).
- You must hold a suitable authorisation to do so, for example an environmental permit.
- You must ensure that
 - all foam and textiles are reliably removed. Any residual pieces or material attached to the frame would remain subject to destruction requirements.
 - releases of material containing POPs, as dust or fragments, are prevented or contained and managed as POPs waste.
 - Removed materials should be stored in a building or under cover.
 - There are no releases of POPs to sewer or surface water
- We recommend you seek appropriate advice on the health and safety aspects of your procedures.

Mechanical Treatment

- **Mechanical treatment** processes that shred the waste before separating materials may result in contamination of the other materials.
- These processes should not process mixed waste.
- If you want to use a mechanical treatment process, you should contact the Environment Agency for advice.
- We would expect it to be capable of reliably separating the foam and textiles, and any particulates arising from treatment, containing POPs from the other materials in the domestic seating waste without contaminating them.
- Where appropriate, the Environment Agency may provide you with an authorisation to do so on a case-by-case basis.

Can I Identify and separate items containing POPs?

- Yes, you can identify and separate items of upholstered domestic seating that contain POPs from those that do not. For example, to
- identify items of waste upholstered domestic seating that do not contain POPs and can be reused for domestic seating.
- Reduce the volume of upholstered domestic seating that you must incinerate.
- You can demonstrate that the item does not contain POPs by using X-Ray Fluorescence (XRF) scanning for bromine in the foam and rear of leather, synthetic leather or other fabric covers. A level less than 0.1% bromine in these components would demonstrate that there is insufficient brominated flame retardant present to be a concern

Preparation for incineration

- In general, items of POPs waste should not be mixed with other waste. So we will be requiring LA's and HWRC's to segregate.
- However these items present physical size, calorific, and flash issues for MWI operators
- Stockholm Convention allows for mixing where necessary to achieve destruction.
- This means that any mixing is driven solely by the needs of MWI, and needs to be demonstrably necessary for combustion (not for any other reason)
- Can occur at the MWI or off site.

“This preparation should be done at the incinerator site or, where that is not possible, it can be done at an intermediary site to meet your specification. You must ensure that for shredding activities:

- Any plant used is located inside a building
- Appropriate measures are in place to prevent dust and other particles escaping the building,
- Any fines, dust, or particulates produced by the process are sent for destruction (or irreversible transformation).
- Any material removed from the waste after the domestic seating is broken up or shredded (for example removal of metal for recycling) is sent for destruction (or irreversible transformation) if it is contaminated with dust or particulates (note: destruction may include R4 smelting for metal)
- Waste is suitably contained to prevent loss of material and escape of dust/particulates during storage and transport.

Appropriate measures to contain dust may include abated local exhaust ventilation (LEV) for both new and existing shredders, particularly where the shredder is not located in the fuel hall of an incinerator.”



Questions?

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