



NFCC
National Fire
Chiefs Council

The professional voice of the
UK Fire & Rescue Service

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17 Smith Square
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Sent to: weee@defra.gov.uk

7 March 2024

Dear Matthew,

National Fire Chiefs Council (NFCC) response to the DEFRA consultation on reforming the Producer Responsibility System for Waste Electrical and Electronic Equipment (WEEE)

NFCC welcomes the opportunity to respond to this consultation on the proposals to reform the Producer Responsibility System for WEEE.

NFCC is the professional voice of UK fire and rescue services (FRS) and is comprised of a council of UK Chief Fire Officers. This response was drafted by NFCC's Strategy and Policy Team in consultation with NFCC subject-matter experts.

NFCC supports the development of a WEEE regime which aims to transition the UK economy towards net zero. Whilst much of the consultation goes beyond the scope of NFCC's remit, we have considered it appropriate to comment on proposals that may affect fire safety, paying particular consideration to potential fire risks at waste-processing facilities and in refuse vehicles, due to incorrectly disposed of lithium-ion batteries.

Causes, extent, and impact of waste fires

Research undertaken by Eunomia on behalf of the Environmental Services Association (ESA) in 2021 estimated that around 48% of waste fires can be attributed to lithium-ion batteries.¹ Based on this research, Eunomia estimated that the total annual cost to the UK of waste fires caused by lithium-ion batteries is £158 million.

Lithium-ion batteries are found in an increasing number of electrical and electronic household items that many consumers will be completely unaware of such as electric toothbrushes, tools, toys, mobile phones, tablets, laptops and in vapes. They are also found in Personal Light Electric Vehicles (PLEVs) such as e-bikes and e-scooters.

Lithium-ion batteries pose a fire risk as they can ignite when crushed in a refuse vehicle or waste-processing plant. Fires caused by lithium-ion batteries are particularly dangerous due to thermal runaway. Thermal runaway will produce toxic and explosive vapours and often a

¹ [Cutting Lithium-ion Battery Fires in the Waste Industry – Eunomia Research and Consulting](#)

fire. If a fire occurs, it may reignite, making these fires particularly challenging to deal with and difficult for fire services to extinguish.

With waste fires sometimes burning for days, and even weeks, the environmental damage is extensive, with harmful greenhouse gas emissions released into the atmosphere and water pollution caused by large volumes of water run-off from extinguishing the fires. Responding to these fires also means increased operational burden and risk to firefighters, as well as disruption to society through rail, retail and road closures due to smoke from the fires. As well as significant material damage, waste site operators also experience business interruption and loss of recycling resources.

In 2023 in response to increased reports of fires caused by batteries and electricals containing batteries in waste, NFCC worked with Material Focus to develop a new “Stop Battery Fires” campaign² to raise awareness of how householders can safely recycle their batteries and electricals. However, in our view, stronger regulatory measures will be necessary alongside public awareness campaigns to mitigate the fire safety risks of lithium-ion battery disposal.

NFCC is also supporting the related work DEFRA is undertaking to ensure the safe use of second life batteries and that controls are in place for the repurposing of batteries. NFCC requests that this work continues alongside the policy development work that will take place following this consultation.

We welcome the opportunity to respond to this consultation and await the forthcoming consultation specifically on disposal of batteries. We would welcome further engagement from Government officials as policy and associated guidance continues to be developed.

Yours sincerely,



John Roberts

Chief Fire Officer, West Yorkshire Fire & Rescue Service
National Fire Chiefs Council

² [“Stop Battery Fires” public safety film launched to raise awareness of fires caused by batteries in the waste stream - NFCC](#)

Section 1: Increasing collections of waste electrical and electronic equipment from households

Whilst it is not for NFCC to comment on the details of how a WEEE disposal regime should be funded, NFCC does endorse the principle that the polluter should pay for the costs of WEEE disposal. We also agree with the principle that a WEEE disposal regime should be easy for consumers to engage with.

We have responded to the following questions in Section 1 of the consultation as they are relevant to fire safety.

Q8. Recognising the need to balance frequency of service with efficiency, what frequency should a WEEE collection round be provided? Please select one of the following options:

- a. Weekly**
- b. Fortnightly**
- c. Monthly**
- d. On demand**

We do not have a view on what frequency a small WEEE collection from households should be provided, however, any decisions made on what a small WEEE collection regime looks, including frequency, should take into account fire safety risks. There would for example be increased fire safety risks where several products containing lithium-ion batteries are stored in one place within a household awaiting collection or where multiple lithium-ion batteries are stored in waste management trucks and sites. A recent fire incident in France that involved 900 tonnes of lithium-ion batteries awaiting recycling required around 70 firefighters to get the fire under control.³ Fire risks must be taken into careful consideration when designing the types of lithium-ion battery disposal facilities in the UK.

Further, it is paramount that when items containing lithium-ion batteries are collected, they are not crushed in a refuse vehicle.

Q10. Would there be benefit in providing for different arrangements to apply in different areas according to circumstances, for example, on demand in some areas and regular collection round in others? Please provide any evidence you have to support your answer.

Having different small WEEE collection arrangements in place in different areas may have the benefit of making it more convenient for consumers to safely dispose their small WEEE. However, having different collection arrangements in place could result in increased burden on local FRS from a fire risk assessment perspective. Furthermore, different collection arrangements could cause confusion for consumers, leading to incorrect and unsafe disposal of small WEEE.

Q11. What should items qualifying for this service be defined by?

- a. Weight**
- b. Dimension**

Lithium-ion batteries are increasingly found in a large range of household products, which the consumer is often unaware of. With 'FastTech' electricals becoming increasingly popular, it is likely that we will continue to see consumers buying cheap short lifespan electrical items

³ <https://www.france24.com/en/france/20240218-major-fire-breaks-out-at-french-plant-housing-lithium-batteries>

which contain lithium-ion batteries. By their nature, lithium-ion batteries tend to be small in size and lightweight which makes it a challenge to define which items should qualify for a small WEEE collection service. In our view, it may be more helpful to qualify items based on energy output as opposed to physical dimensions. This is because producers are creating more energy dense products, often with more energy stored in products that are small in physical size. It is the activation energy in devices which cause fire risks when they are collected and incorrectly disposed of.

As there are specific fire risks associated with lithium-ion battery disposal, a specialised distinct regime for the collection of products containing lithium-ion batteries may need to be considered. Proposals for such a regime should be developed in consultation with fire safety experts. Furthermore, when developing a lithium-ion battery disposal regime, other related measures should be considered. For example, enhancing UK product standards to ensure that products are assembled in a way that makes it easier for disassembly in a controlled environment to detach lithium-ion batteries once they have been collected; would help to ensure that lithium-ion batteries are disposed of safely, minimise fire safety risks and maximise recyclable materials.

16. Do you agree or disagree that the most efficient and cost-effective delivery of the obligation to provide a regular household collection service for small WEEE and bulky waste collections for large WEEE is likely to be achieved through partnerships between a Scheme Administrator and Local Authorities and their waste management partners? Please select one of the following options:

- a. Agree
- b. Disagree
- c. Unsure

We agree in principle that efficient and cost-effective delivery of small and large WEEE will be achieved through partnerships between a Scheme Administrator and Local Authorities and waste management partners. Local FRS should also be consulted within local area partnership arrangements as they will play an important role considering the fire risk from the mass storage site, fire risk assessments and incident response planning.

Section 2: Increasing distributor collections infrastructure

Q.43. Do you agree or disagree that the current information requirements should be enhanced, to ensure customers are provided with information about their recycling options 'at the point of sale'?

- a. Agree
- b. Disagree
- c. Unsure

Q.44. Please provide any evidence you have to support your answer to question 43

We agree with the proposal that a requirement is placed on retailers and internet sellers to make customers aware of their disposal options for unwanted equipment at the point of sale.

However, since it is difficult for consumers to identify which products specifically contain lithium-ion batteries, in our view, there should be additional information requirements on manufacturers (and/or sellers) of products that contain lithium-ion batteries.

Additional information should include information about safe usage, charging and storage practices and a prominent warning about the dangers of improper disposal. Consumer information requirements about safe use and disposal should be made a requirement in legislation, for example through adopting the Safety of Electric-Powered Micromobility Vehicles and Lithium Batteries Bill⁴.

Section 3: New producer obligations for Online Marketplaces and Fulfilment Houses

Q53. Do you agree or disagree that Online Marketplaces should be required to fulfil the producer obligations on behalf of their overseas sellers? Please select one of the following options:

- a. Agree
- b. Disagree
- c. Unsure

Q54. Please provide any evidence you have to support your answer to question 53.

Q55. Do you agree or disagree that fulfilment houses should be required to meet the producer obligations on behalf of their overseas sellers? Please select one of the following options:

- a. Agree
- b. Disagree
- c. Unsure

Q56. Please provide any evidence you have to support your answer to question 55.

We agree with the above proposals to impose producer obligations for Online Marketplaces and fulfilment houses under the WEEE Regulations to ensure an even playing field between registered and unregistered producers. We think that the proposal that there would be a requirement for Online Marketplaces and Fulfilment Houses to submit data in relation to total amount of electricals placed on the market by their overseas sellers has the potential to provide useful insight to compliance with product safety standards and trends in consumer behaviour.

However, online marketplace regulations need to be more robust from an overall fire safety perspective. We are concerned about the safety of lithium-ion battery products purchased online as there is a higher risk that they are substandard or faulty, with many fires involving counterfeit electrical goods which do not meet UK product standards. Reports have included explosive fires of cheap replacement laptop chargers, conversion kits for e-bikes and e-scooters, vacuum cleaner batteries and vapes. These fires have resulted in damage to property and in some cases, severe injury, or death. As referenced earlier in response to Q11 of the consultation, the risks associated in particular with lithium-ion battery products may justify establishing a separate specialist disposal regime.

Section 4: Dealing with the environmental impacts of vaping products

⁴ [Safety Bill | Electrical Safety First](#)

Q63. Do you agree with the proposal to create a new category for vapes? Please select one of the following options:

- a. Agree**
- b. Disagree**
- c. Unsure**

In principle, NFCC supports DEFRA's proposal to create a new discrete category of vapes in the WEEE Regulations 2013 so that vape producers pay the full cost of separate collection and recycling of waste vapes. However, further work will be required to understand how vapes will be safely collected and recycled. For example, there will be high fire risks related to multiple vapes being stored in a storage container awaiting collection. There will also be fire risks associated with the transport of large quantities of end of life vapes which will need to be considered.

Vapes are only one of many household products which contain lithium-ion batteries, therefore consideration may need to be given to creating a separate category (and development of a separate WEEE disposal regime) for products containing lithium-ion batteries.