

3rd March 2023

Director,
Lithium-ion Batteries Project,
Consumer Product Safety Division,
Australian Competition & Consumer Commission,
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National Waste and Recycling Industry Council (NWRIC) response to ACCC Lithium-ion Batteries Issues Paper of December 2022

Further to our initial response on the 24th January NWRIC (Council) provides the following additional information based on more detailed Council member feedback.

This information and feedback further accentuate NWRIC's profound concern with the incidence and risks of fires attributed to Li-ion Batteries in our members facilities and vehicles and across the wider waste and recycling industry in Australia. These fires and the associated risks of handling, transporting, storage and disposal of waste or the processing of recyclables present significant safety, environmental, financial, and business continuity risks to our members.

Council members and its affiliates are the principal contractors servicing more than 80% of all Australian households with waste and recycling services, as well we service more than 80% of all Australian Commercial, Industrial, Government, Medical and other businesses. In several jurisdictions this number exceeds 95%.

Council's members collect waste and recyclables from a significant percentage of Australian households and business. Some members also provide hazardous waste specialised services for collection and transport of batteries including Li-ion Batteries from customers to member sites or third-party consolidation centres. Please note that Australia has very limited Li-ion Battery re-processing capabilities and facilities and most Li-ion Batteries are consolidated and exported for re-processing overseas. Members providing these services have specialised procedures for the handling, transport, and storage of hazardous waste with significant combustion risks such as Li-ion Batteries.

However, it is when members 'unknowingly' collect and transport or receive at their facilities Li-ion Batteries placed into waste or recyclables bins or in truckloads of mixed materials (in contravention to acceptance criteria and consumer and local government warnings) where considerable risks occur and can impact with significant consequences the collection vehicles and facilities.

These consequences include safety risks and impacts to employees and a high risk of property damage and further the impacts upon customer service delivery and business continuity, the risk to the retention of insurance cover and considerable trading and financial impacts. These are matters not explicitly addressed in the Paper and in the Councils' view are serious concerns that should be highlighted in the Paper along with the need for further regulation, industry leadership and community education to minimise the risks of incorrectly disposing of Li-ion Batteries.

Based on the above Council has developed an internal working group to monitor and assess the ongoing risks of Li-ion Batteries to our members businesses' and to develop advocacy positions. Hence in respect of the Questions to which the ACCC has requested a response we provide the following additional feedback:

Types of Li-ion batteries in consumer products

1. Do you consider certain types of Li-ion batteries (per Table 1.1 of the Paper) are more hazardous than others? For example, are certain types of Li-ion batteries more hazardous because of the chemistry make up and/or other factors that impact the hazard (see Table 1.2 for reference)? Please provide an explanation and/or evidence to support your response. Hazards and risks associated with Li-ion batteries.

Members are reporting batteries removed from incoming loads that don't even identify their chemistry. As an example, the battery below from Sony Fukushima has no chemistry information labelling. An internet search indicates its Lithium-ion. <https://higherwire.com/products/sony-us18650gr-g8-18650-lithium-ion-cells-2400mah-rated>



The country of origin / manufacture is also increasingly becoming an identifier of hazards with lower priced and quality products containing Li-ion Batteries sourced from China where certification standards are either not in place or stringent enough to provide adequate safeguards.

3. Is there a stage at which Li-ion batteries are most dangerous? For example, when being manufactured, transported, stored, used/misused, charged, or disposed of. Please provide an explanation and/or evidence to support your response. Li-ion battery incident data

The Disposal stage is the most dangerous, as the batteries are often mixed in waste and recycling streams, transported after consumer disposal in collection vehicles and offloaded into waste disposal or recycling facilities. Their presence is unknown and almost impossible to identify. Further these batteries are becoming smaller which makes them even more difficult to detect including batteries in smoking vapes, tyre pressure sensors and air pods just to name a few small consumer goods where the use of these batteries is increasing. Also, we note the heightened risk with damaged and swollen batteries which can readily occur in mixed waste and recycling loads and with the compaction, sorting or shredding equipment deployed in collection vehicles and disposal / recycling facilities. This equipment can break a Li-ion battery easily leading to increased combustion risks.

4. Can you provide any information or data (not already provided) on injuries, incidents, fatalities, or near-misses involving a Li-ion battery?

It is only in recent years that Council members have maintained records where fires are attributed specifically to Li-ion batteries with over 60 fire incidents occurring in the past two years to Feb 2023. Some members in the metals recycling sectors are reporting 100% of fire incidents in the last 18 months as being attributed to Li-ion Batteries ranging from low to high severity. The number of incidents is also increasing year on year. Of particular concern is the significant risk to recycling facilities and landfills of the combustion of these batteries with other waste and recyclable materials which even with reinforcement of acceptance criteria, enhanced load inspection measures and sensor equipment installed and operational is seeing increasing incidents in number and severity.

Members also reported the difficulties of identifying the cause of fires withing collection vehicles or in facilities, however given the volatile nature and broad availability of Li-ion Batteries we believe they are the source even if not verified, with overall fire incidents increasingly considerably in the last two years.

Regulatory landscape

14. Do you consider government intervention is required to manage Li-ion battery safety risks? If yes, what form of intervention do you recommend? Please explain your response.

Council advocates the need for the introduction of a mandated regulated product stewardship scheme that places responsibility for the full lifecycle of these batteries on product retailers and manufacturers ensuring they are accountable by paying and taking ownership of the end disposal of Li-ion Batteries. Members are advising they often see batteries that don't even identify their chemistry.

We would recommend government regulate that all batteries identify their chemistry before being introduced into the market

Additionally, we recommend a government funded awareness campaign about the dangers of Li-ion batteries and education on why these batteries and associated devices cannot be disposed of in domestic waste streams. This includes videos and photographs demonstrating vehicle and receival facility fires attributed to Li-on batteries. The education needs to be on multiple levels – flyers, schools, newspaper, social media and TV. A key factor for schools is educating the upcoming generation in the hope that they will educate their families and as they become adults and own their own houses, they are conscious of their disposal streams.

Recent reports in New York have E-bike batteries causing 200 fires and six deaths in 2022, hence in New York, the risks are well known to the public.

<https://www.theguardian.com/us-news/2022/nov/14/new-york-e-bike-batteries-fires-delivery-workers>

Potential risk mitigation strategies

15. Do you recommend any existing voluntary, industry or international safety standard, or overseas regulatory frameworks or certification methods, as having potential to mitigate the risks discussed in this Issues Paper? To what extent do these already address the risks discussed in this Issues Paper?

This is not just an Australian issue and best practice international regulation and action from regulators globally should be researched and evaluated before initiatives are formulated in Australia.

We advocate that the Government introduce a minimum safety standard for the manufacture of Li-ion batteries as we believe, in pursuit of lower prices these batteries are in a 'race to the bottom' in respect of quality manufacturing.

18. What other potential risk mitigation strategies may be effective in reducing the risks posed by Li-ion batteries? Please explain your response.

The Council believes a mandated and properly funded fully regulated end of life product stewardship scheme placing responsibility for the full lifecycle of these batteries on product retailers and manufacturers is legislated. In doing so this would ensure responsible parties are held accountable by paying and taking ownership of the end disposal of Li-ion Batteries.

The labelling of Li-ion Batteries as **'Fire Risk – do not dispose in Waste'** is an essential product warning message that should be clear on all Li-ion Batteries and products containing such.

There is also the issue of accountability of suppliers - where the source of a Li-ion Battery can be identified, education directly aimed at the source including enforcement action taken by Council's across Australia such as verbal warnings, written warnings and fines would be a strong initiative.

A key factor is having easy disposal availability – providing quick and easy disposal options / locations to consumers. This could include the provision of segregated boxes delivered to domestic households as a reminder that they need to be separated and disposed of via a separate supply chain avenue and not placed in the domestic waste / recycling bins.

19. What research is available that is directed to the prevention of injuries or fatalities caused by Li-ion batteries. For example, research into safer design and manufacturing practices. Please provide details of this research.

The Council has not undertaken such research but to reduce the risk of fires to its members businesses, members have implemented enhanced safety and hazard monitoring and risk mitigation systems.

This is reflected with warnings to customers about non-acceptable material including Batteries, increased inspection procedures upon acceptance of waste and recyclables and enhanced fire mitigation procedures and controls including mobile and fixed thermal sensors.

20. Are there further innovations, including advances in technology, that could either mitigate or exacerbate the hazards associated with Li-ion batteries discussed in this Issues Paper

The main innovations we would see are increased public awareness campaigns, heightened manufacturer product warnings and the readily availability of risk managed / licensed disposal facilities and processes for the correct and safe disposal of end-of-life Li-ion Batteries.

NWRIC is a significant end of pipe stakeholder for the collection, transport, disposal or re-processing of waste and recyclables in Australia and in-fact at the front line of the day-to-day risks of the dangers of non-segregated Li-ion Batteries and their combustion in loads we collect and receive in members facilities. We look forward to playing a key part in enhancing their safe end-of life disposal and mitigating the significant risks they present to our members. We trust our additional comments and feedback provide further clarity to the ACCC of the importance of this issue to our members, our customers, and the wider community.

With kind regards

Yours sincerely,

National Waste Recycling Industry Association

A handwritten signature in black ink, appearing to read 'Rick Ralph', with a stylized flourish at the end.

Rick Ralph

Chief Executive Officer