VIA ELECTRONIC MAIL

July 11, 2022

Re: EPA Request for Information: Development of Best Practices for Collection of Batteries to Be Recycled and Voluntary Battery Labeling Guidelines

To whom it may concern:

Battery Council International (BCI), the leading trade association representing battery manufacturers and recyclers across North America, appreciates EPA's continuing and in-depth analysis of the elements required to support effective nationwide collection and recycling systems for all battery chemistries.

BCI and our members have deep expertise in battery recycling systems, particularly for lead batteries, and are the primary stewards of the collection and recycling network for those products. Today, there is a fully established and effective nationwide network for recycling used lead batteries. BCI shares the goal of EPA and many others of extending the learnings and success of that system to batteries of other chemistries, and in doing so responsibly.

I. Introduction

Many of the mechanisms in place for lead batteries can serve as useful models or frameworks for batteries that employ other chemistries. At the same time, it is incredibly important that regulators and other stakeholders avoid negatively impacting or disrupting the efficiency of the lead battery recycling network. Changes to the laws or regulations applicable to lead batteries, or the inadvertent establishment of conflicting requirements for "all" chemistries, may divert lead batteries from the existing recycling infrastructure. This would lead to a decrease in recycling – a highly undesirable outcome for all parties and for the environment.

The challenge before EPA is more than just encouraging consumers to properly direct used batteries for recycling. Because each battery chemistry family requires different reclamation techniques and facilities, the cross-contamination of recycling streams can lead to safety hazards, increased processing costs, and reduced quality of recovered materials. EPA therefore also must consider how best to ensure that consumers and collection network participants have the information and opportunity to direct each type of battery to the proper collection stream.

However, while a one-size-fits-all approach is not workable or practical for all spent batteries in light of (among other things) the need to protect and strengthen existing recycling networks, BCI believes that using a consistent approach across all major chemistries, based on existing practices and labeling standards, will provide the most clarity to consumers and provide the most effective support to collection networks.

As addressed in detail below, battery labels should have a consistent and simple marking (*e.g.*, a color-coded three-chasing-arrows symbol) across all battery chemistries. This will encourage and aid recycling by successfully addressing three primary goals:

1. Instructing consumers to keep batteries out of the trash and curbside recycling, and directed to dedicated battery recycling networks where available.

2. Providing consumers and recycling network employees human-readable information to enable sorting of used batteries among major chemistry families (*e.g.*, Pb, Li-ion, Ni-Cd, Ni-MH, and Li-metal).

3. If appropriate within a chemistry family, informing recyclers of the unique features, components, and/or constituents of the batteries for recovery (*e.g.*, cathode material).

EPA should look to existing voluntary industry standards, like IEC 62902, as a template for a consumer-facing recycling symbol intended to address these priorities.

II. <u>The Existing Lead Battery Recycling System is Highly Effective and Should be Protected</u>

The lead battery industry operates the most successful circular economy in the United States. It recycles 99% of end of life batteries (by weight) each year -- approximately 130 million per year.[1] The success of this system has been recognized by EPA,[2] the World Economic Forum, and The Sustainability Consortium. Our first-hand experience demonstrates that recycling can be a central component to a robust domestic manufacturing industry. This increases America's energy independence. At the same time, recycling reduces waste and limits greenhouse gas creation and environmental impacts. The lead battery industry is committed to safe and sustainable recycling methods to ensure that lead batteries are an essential part of an energy storage mix to achieve a cleaner, greener future.

Lead batteries come in a wide variety of sizes and shapes, depending on the application – from small motorcycle batteries weighing only a few pounds, to batteries weighing hundreds of pounds for heavy-duty trucks, or thousands of pounds in the case of batteries for warehouse forklifts. This wide range of battery types are collected for recycling by lead battery retailers and distributors, and returned via a reverse logistics system to battery manufacturers and recyclers.

During use, a lead battery undergoes permanent chemical and physical changes. Over time, these decrease the battery's ability to charge and discharge electricity. After sufficient use, a lead battery is no longer capable of holding an adequate electrical charge and becomes

[1] BCI National Recycling Rate Study, Nov. 2019 (available at https://batterycouncil.org/page/RecylingStudy).
[2] EPA Facts and Figures About Materials, Waste and Recycling, Lead-Acid Batteries (available at https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/durable-goods-product-specific-data#LeadAcidBatteries)

"spent." However, a used battery retains value as a source for lead, plastic, and sulfuric acid, all of which can be reclaimed from it. A battery's lead content is reclaimed in smelters, combined with lead from other recycled batteries, and re-manufactured into new batteries or other products (95% of the lead metal consumed in the U.S. is used in the production of batteries.). The plastic and much of the sulfuric acid also is recovered or reclaimed.

Approximately 90% of the lead batteries sold in North America are manufactured in North America and, at the end of life, most are recycled in North America. North American recycling facilities provide 86%[3] or more of the lead metal needed to manufacture new lead batteries in the U.S.[4] That unparalleled and well-established supply chain ensures that the primary input material for lead batteries is readily available and insulated against major international supply chain interruptions. Moreover, using spent batteries instead of virgin materials to produce lead for new batteries uses 90% less energy and produces 90% less greenhouse gas.

The U.S. lead battery industry directly employs approximately 24,700 U.S. workers and spends $7.4 billion annually on payroll for good, American manufacturing jobs.[5] Compared to many other private industry sectors, salaries in the domestic lead battery industry are 96% higher for recycling and mining workers, and 28% higher for manufacturing workers which provides access to the middle class without requiring a four-year degree. In addition to the workers directly employed, the lead battery industry supports 30,900 supplier jobs and an additional 36,600 jobs from spending in different industries. Together, these impacts total 92,200 jobs, providing more than $6 billion in labor income and more than $26.3 billion in economic output.

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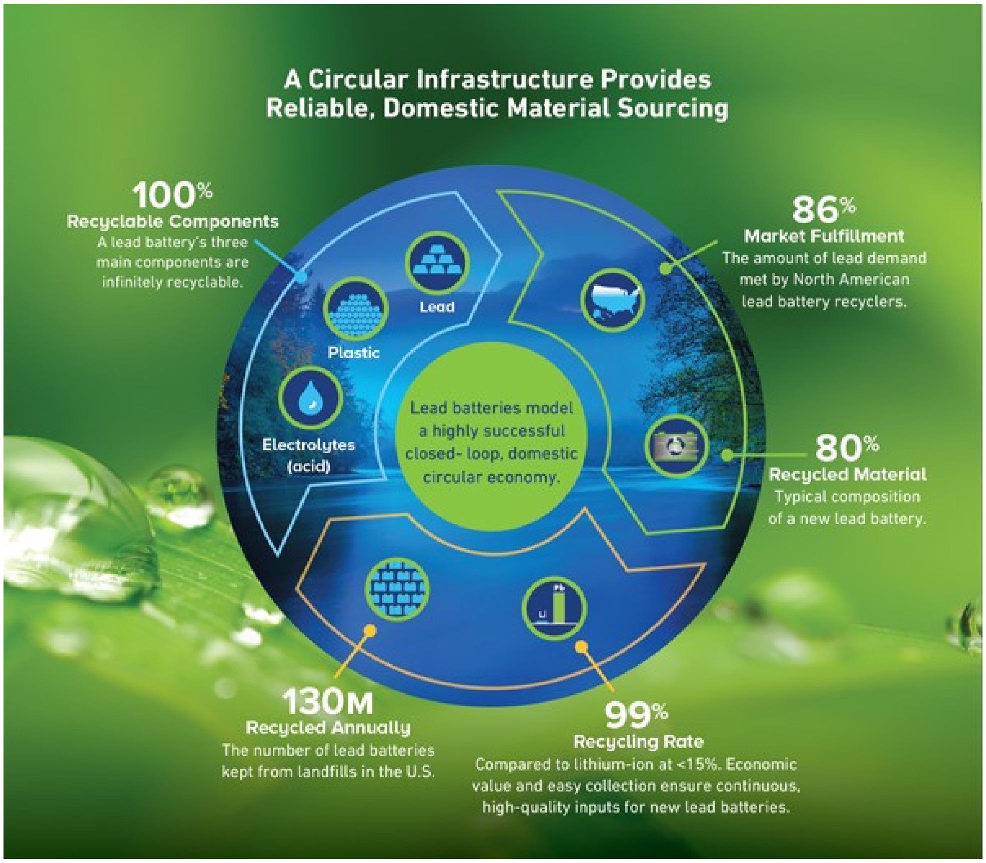
[3] U.S. recycling facilities provide 62% of domestic consumption, Canada provides approximately 16.4% and Mexico another 7.5%. The majority of imported lead metal comes from Canada and Mexico, where the largest facilities are owned by or have long-term relationships with U.S. companies.

[4] U.S. Geological Survey, 2022, Mineral commodity summaries 2022: U.S. Geological Survey, p. 96 (available at https://pubs.er.usgs.gov/publication/mcs2022)

[5] Battery Council International, *Economic Contribution of the U.S. Lead Battery Industry* (available at https://essentialenergyeveryday.com/wp-content/uploads/2019/10/Economic-Impact-of-Lead-Batteries-in-the-United-States-Sept-2019.pdf)



A. The Existing Lead Battery Recycling System is Built on State Laws Promoting Collection for Recycling

The current well-established and highly efficient lead battery collection system has existed in the United States for more than three decades.

In large part, this unparalleled system owes its origin and success to the widespread adoption of state laws mandating key elements of the collection network starting the late 1980s. These laws were enacted—with strong support from BCI and others, including EPA—based on the BCI Model Law and its principles.[6]

As of 2022, 39 states and the District of Columbia had enacted either that model in whole or a modified version. An additional nine states have enacted bans on the improper disposal of used batteries in landfills. BCI supports all of these laws.[7]

[6] *See States' Efforts to Promote Lead-Acid Battery Recycling, U.S. Environmental Protection Agency (Nov. 19, 1991) at page 22-27.*

[7] https://batterycouncil.org/page/State_Recycling_Laws

The vast majority of spent lead batteries are collected for recycling from consumers, either at retail outlets that sell new batteries or at retail service facilities where new batteries are both sold and installed. The spent lead batteries are picked up from retailers by battery distributors, lead battery manufacturers, or recyclers, and delivered to lead recycling facilities. Any lead battery returned by a consumer to a retailer will be taken back through this system, regardless of make or brand. This network provides consumers with a nationwide network of professional collection locations: every establishment that sells lead batteries also collects them for recycling. This means there are already more than 250,000 used lead battery collection locations nationwide.[8]

The existing used battery collection network, working in harmony with each state's law creates a highly effective nationwide system that is paid for by industry, receives no government subsidies, runs at no cost to taxpayers, and does not charge consumers a disposal fee.

EPA's RFI requested comment on the collection and recycling of small sealed lead batteries (SSLAs), and suggested that SSLAs may not be recycled at a comparatively high rate. BCI is not aware of any data that would suggest SSLAs are not collected and recycled at a similarly high rate to other lead batteries. While the recycling industry does not typically track returned batteries by size and type (returned batteries are palletized and tracked primarily by weight), industry experts, including retail and industrial distributors and reverse logistics collectors of SSLAs, have told BCI that SSLAs are collected in volumes equivalent to sales, indicating that recycling rates are robust.

B. Key Elements of the BCI Model Law

Key to the success of the lead battery circular economy has been the lead battery industry's embrace of an extended producer responsibility system based on a retail collection model for retail sales (along with industrial suppliers making similar arrangements for business-to-business sales), and the industry's support for state laws enabling that system.

Using model state legislation promoted by BCI since the late 1980s, more than 39 states have adopted requirements that:

a. Prohibit the landfill disposal of lead batteries;
b. Require retailers that sell lead batteries to accept used batteries at the point of sale;
c. Require that suppliers arrange for the return of used batteries collected by retailers; and
d. Incentivize consumers to return used batteries for recycling through refundable deposit at the time of sale, which is fully refunded to the consumer upon the return of a used battery in exchange.

Because the system is industry operated, the BCI Model Law and most state implementations do not charge consumers any additional disposal or other fees to support collection and recycling.[9] The BCI Model provides that—if the customer does not bring a used battery to

[8] AutoCare Association 2023 Factbook (https://digital.autocare.org/2023factbook).
[9] A limited number of states impose a separate environmental or other fee. These typically support state hazardous waste cleanup efforts, but not collection activities.

exchange at the time of purchase—retailers should assess a fully refundable return incentive "core charge" or "deposit." The lead battery return incentive is refunded to the consumer when the customer presents their used lead battery.

In practice, most consumers are never charged a core charge or deposit. This is because the majority of vehicle owners have their vehicle battery replaced by a professional dealership, repair shop, or auto parts retailer, or bring their used battery with them to the store to ensure they purchase the correct replacement. Because a used battery is presented at the time of replacement, the core charge is unnecessary to incentivize a later return and therefore is waived.

For consumers who do not bring a used lead battery with them (for example, a DIY home mechanic), the core charge provides an economic incentive for the consumer to return the used lead battery being replaced after the transaction. It also discourages consumers from improperly disposing of lead batteries in municipal trash or the environment.

The system works without charging consumers non-refundable or disposal fees because lead batteries, unlike most other used products, have a residual positive net value. The lead metal inside the lead batteries can be readily and economically recovered to make new batteries. This means that recyclers actively seek used lead batteries to be returned as a source of raw material for new batteries. The plastic case and the electrolytes are generally recycled or recovered as well.

In summary, the lead battery industry already has an established professional network of at least 250,000 lead battery collection sites, which are serviced by professional battery transporters and recyclers ensuring that 99% of used lead batteries are collected and recycled to make new batteries. This entire system operates at no cost to the state and without imposing disposal fees or environmental handling fees on consumers. Further, by mandating that lead battery retailers act as no-cost collection sites, the BCI Model Law ensures that battery collection opportunities are provided to consumers wherever and in whichever community they choose to purchase a new battery.

C. Recycling Stream Contamination Poses Safety Hazards and Reduces Process Efficiency

A key component of the safe and profitable operation of any metals recycling operation is efficiency and consistent throughput. BCI's recycling members process more than 130 million car batteries per year for recycling across North America, with hundreds of millions more processed around the world. Across the major recycling facilities in the U.S., a typical battery recycling facility can process between 60 to 80, or more, car-battery-sized batteries per minute.

The lead battery recycling process was uniquely designed for lead batteries, and is highly efficient when supplied with a steady supply of used lead batteries. This efficiency is one of the core drivers of lead batteries' unparalleled recycling success. However, when incompatible materials such as lithium batteries enter the lead battery recycling stream, they can reduce the quality of the recovered materials and more importantly pose a serious threat to employee safety.

The contamination of the lead battery recycling stream with lithium batteries dramatically increases the risks of fire and explosion posed to facilities and workers. This is because lithium batteries can explode if they are crushed during the lead battery recycling process.[10] This is, in large part, due to the high energy potential of these batteries combined with their relatively low tolerance for physical damage. Every lead battery recycler with whom BCI has spoken has experienced multiple incidents of lithium batteries entering lead battery processing equipment, with numerous fires and explosions occurring around the industry.

The contamination of any chemistry-specific recycling input stream with incompatible chemistries will also decrease the process efficiency and potentially compromise the quality of the recovered materials – potentially to the point of rendering them unsaleable for the target market. For example, the inadvertent inclusion of sufficient quantities of nickel-based chemistries in the lead battery recycling process can require the recycler to perform additional time-consuming and expensive metallurgical refining steps to achieve the necessary quality of recovered lead metal. This also can increase the amount of waste slags produced by the process.

To combat the growing contamination of the waste stream inputs, lead battery recyclers have implemented mechanical, automated, and operational controls. BCI has developed educational and training materials for use by the public, battery collectors, and sorters to help identify and segregate materials to direct them to the appropriate waste streams.[11] Workers working in material receiving areas are trained in methods for identifying otherwise hidden lithium batteries (*e.g.*, by weight and other visual clues); examples of frequently encountered lithium are displayed on posters; and additional conveyor-belt shutdown buttons have been installed along the lines. Several recyclers have also been investigating the potential for automated detections systems, such as weight or x-ray sensors. But to date, those systems have not proven reliable or sensitive enough to catch all improper batteries. The most effective means to identify non-conforming batteries continues to be through visual identification and worker intuition.

III. <u>Battery Chemistry Labeling Standards and Guidelines are Needed</u>

The challenge before EPA encompasses more than just encouraging consumers to properly direct spent batteries for recycling. Even after consumer disposal, the cross-contamination of

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[10] Lithium batteries are also widely reported to be the cause of numerous fires at waste sorting facilities. The root causes are similar. U.S. Environmental Protection Agency, An Analysis of Lithium-ion Battery Fires in Waste Management and Recycling, July 2021) available at https://www.epa.gov/system/files/documents/2021-08/lithium-ion-battery-report-update-7.01_508.pdf.

[11] https://batterycouncil.org/page/LithiumSafety

recycling streams can lead to safety hazards, increased processing costs, and reduce the quality of recovered materials.

BCI strongly supports the adoption of consistent battery chemistry labeling standards across all chemistries to facilitate collection and sorting for recycling. Each battery chemistry requires different technologies and processes to reclaim, and the inadvertent inclusion of an incorrect chemistry battery in a dedicated processing stream can cause both contamination of recovered materials and safety hazards during processing.[12] The risks and hazards posed to lead battery recyclers are described above.

Currently, there is no mandate in the US or any other country for all battery chemistries to use a uniform identification for battery chemistry. This has created problems in the marketplace because batteries of a similar size can be readily confused, and frequently are placed into the wrong recycling collection stream. EPA should consider how best to ensure that consumers and collection network participants have the information needed and opportunity to direct each type of battery to the right collection stream.

Battery labels should have a consistent and simple marking (*e.g.*, a color-coded, three-chasing-arrows loop) across all battery chemistries to encourage and aid recycling. At a minimum, recycling and chemistry markings should address three primary goals. In order of priority, they are:

1. Instructing consumers to keep batteries out of the trash and curbside recycling, and directed to dedicated battery recycling networks where available.

2. Providing consumers and recycling network employees human-readable information to enable sorting of used batteries among major chemistry families (*e.g.*, Pb, Li-ion, Ni-Cd, Ni-MH, and Li-metal).

3. If appropriate within a chemistry family, informing recyclers of the unique features, components, and/or constituents of the batteries for recovery (*e.g.*, cathode material).

As labeling standards are adopted, it is important that those standards be consistent across chemistries and required for all batteries sold on the U.S. market, regardless of the country of origin. Requirements imposed only on domestic manufacturers will fail to address the problem in light of the dominance of foreign manufacturers of lithium and other battery chemistries. Labeling standards must be identifiable and enforceable by U.S. Customs Inspections officials to ensure that batteries entering the U.S. market are compliant and do not pose additional hazards.

Battery labeling best practices also should consider, in addition to a recycling and chemistry disclosure marking, additional safety and hazard information to inform users and recyclers of necessary storage requirements, fire-hazards, and other information. CPSC and OSHA labeling standards for consumer and workplace batteries, respectively, likely would provide the

[12] https://www.youtube.com/watch?v=4TPnUrENTRc

necessary information. For batteries not subject to mandatory CPSC or OSHA labeling, EPA should evaluate potential guidance on information that should be included.

A. Battery Chemistry Labeling Must Provide Effective, Human-Readable, Sorting Information to All Participants in the Chain

The risks and issues described above, and the increasing contamination of used lead battery streams with lithium batteries, has required recycling facilities to invest heavily in manual and technological sorting techniques. BCI members and battery recyclers and sorters have consistently told BCI that automated and mechanical systems for chemistry sorting do not have the same level of effectiveness as sorting at the collection point and should be considered only as last-mile safety systems to prevent hazards – and not primary sorting technology.

To aid sorting at the collection point, BCI supports the implementation of consistent labeling of battery chemistries. Consumers returning battery materials should be empowered to ensure that they are returning the right types of products to the right collectors. Consumers and collection employees are best placed to ensure that collected batteries are properly sorted to facilitate recycling.

Recycling labels should be visible on the battery in the form in which it enters battery recycling collection networks. For individually sold batteries, or batteries that are readily detachable or removable by consumers from the powered device, the labels should appear on the battery itself.

BCI also believes that the current requirements to label consumer products in situations where the batteries contained are not "easily removable"[13] are appropriate for larger products and devices, and should be applicable to all chemistries.[14]

A human-readable marking is critical to ensuring the success of waste stream sorting by providing readily and quickly understood sorting information during all stages of the battery collection process. As noted above, in BCI members' experience, the most effective point at which to enable chemistry sorting is at the initial point of collection, which is typically the only point in the system at which batteries are handled individually. Once batteries are palletized or collected in bulk containers, it is much less likely that a human handler will have the opportunity to carefully inspect the battery. Clear, human-readable sorting labels should provide every handler, at any stage in the collection network, the minimum information necessary to identify incorrectly sorted batteries for redirection.

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[13] 42 USC § 14302(3).

[14] For small or portable electronic devices (e.g., cell phones, tablets, computers, etc), other labeling or communication approaches may be necessary and appropriate–BCI does not take a position on the labeling for those devices.

BCI does not believe that digital labels (*e.g.*, QR codes or RFID chips) will provide the necessary information to consumers, collectors, or sorting facilities. Because digital labels are not human readable and require the use of additional technology, often with an internet connection, which may not be available, allowed, or be safe in all locations. Further, relying on digital labels will slow down the sorting of batteries at collection and consolidation points compared to human readable labels. However, digital labels may be useful in circumstances where the manufacturers wishes to relay additional information, or information that is too detailed or voluminous to fit on the label. Thus, the use of digital labels should be voluntary, and not relied on for providing recycling, sorting, or chemistry family.

B. Labels Should Use Existing, Simple, and Recognized Recycling Symbols Updated to Include Color Coding

BCI urges EPA to evaluate existing labeling standards and best practices, and to base any new labeling guidelines on those existing models. Not only are existing labeling techniques already well recognized—reducing the learning curve of the public—but battery labels are already required to display significant amounts of information. EPA should avoid unnecessarily increasing mandatory labeling elements, or creating duplicative requirements.

For the past 25 years, small sealed lead batteries and nickel-cadmium batteries have been required to bear a recycling symbol pursuant to the Rechargeable Battery Recycling Act of 1996.[15] For SSLAs, that label must include a black and white recycling symbol with the letters "Pb" declaring the battery chemistry, and include the words "Lead, Return, Recycle," or the phrase "Battery Must Be Recycled." These symbols have provided useful information to consumers for many years.

After several decades of experience with these symbols, and as additional battery chemistries enter the market, it is now clear that this highly effective and simply labeling concept should be extended to all major chemistries,[16] and should be updated to include color-coding to aid sorting and recognition.

BCI believes that color-coding should be included as a sorting aid, in addition to text-based disclosures of battery chemistries (*e.g.*, Pb, Li-ion, Ni-Cd, Ni-MH, and Li-metal). This dual marking approach enables rapid sorting for both English-reading foreign language speakers and non-literate employees. Color markings are also significantly easier to see during high-volume operations, such as on conveyor belts, where batteries do not have consistent orientations.

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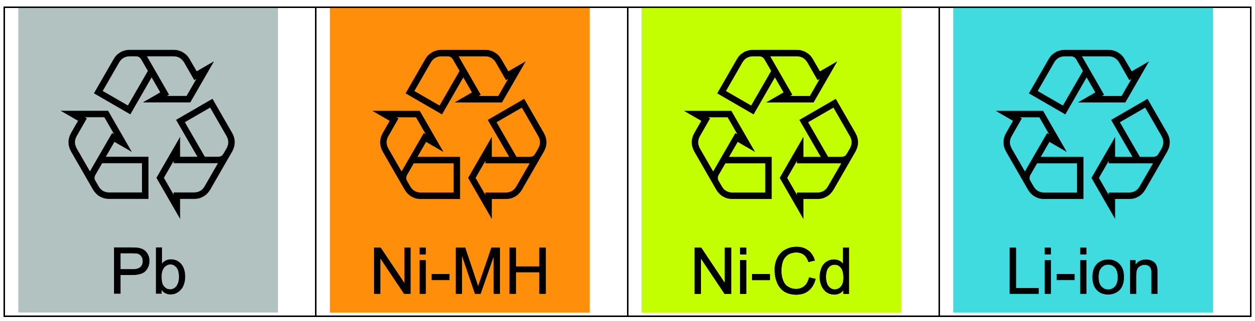
[15] 42 U.S.C. § 14322(b)(1).

[16] The Administrator retains the authority to extend these or substantially similar labeling requirements to additional battery chemistries through rulemaking.42 U.S.C. § 14322(d)(1).

C. Voluntary Industry Standard IEC 62902 Implements Best Practices

BCI supports the broader adoption of the IEC's international voluntary standard 62902 (IEC 62902), which implements a color-coded battery chemistry labeling system designed to aid collection facilities in identifying and sorting batteries by chemistry family, and which aligns with BCI's recommendations above.

IEC 62902 uses text-based chemistry designation (*e.g.*, Pb, Li-ion, Ni-Cd, Ni-MH, and Li-metal), existing recycling symbols, and internationally recognized color markings. The colors adopted in IEC 62902 mirror the colors that have been included in other industry recommendations and/or voluntary standards for many years, including Japanese law,[17] recommendations from Battery Association of Japan,[18] SAE International,[19] and the private labeling templates from Call2Recycle.[20] The IEC standard is also compatible with U.S. legal requirements of the Rechargeable Battery Recycling Act.



The use of a globally acceptable or consistent marking and color-coding scheme is also important to ensure that manufacturers are able to implement the labeling requirements, and that there is global acceptance of the scheme. EPA should also work with global partners to promote the use of a consistent labeling scheme. Starting with an existing international standard will help achieve that goal.

IV. Battery Collection Networks Must be Robust and Widespread

BCI's experience over the past 40+ years has demonstrated that battery collection must be as widely available to consumers as possible, and must operate at no cost to consumers at the time of disposal. Even small or avoidable barriers or disincentives to recycling can lead to lower return rates.

[17] Japan Law for Promotion of Effective Utilization of Resources.

[18] Battery Association of Japan, "Program to Make the Portable Secondary Battery Recycle Mark an International Standard (English translation not publicly available).

[19] SAE J2984 (2021); Appendix G to SAE J2936 (2012); *see also SAE Whitepaper: Identification of Transportation Battery Systems for Recycling*, 2012-01-0351, Published 04/16/2012 (Todd F. Mackintosh, General Motors Company).

[20] Call2Recycle, Battery Recycling Seal Usage Standards, *available at* https://www.call2recycle.org/stewards-support-center/.

A. Collection Must Be Widespread and Dealers Must Accept Used Batteries from Consumers

The BCI Model Law adopted a uniform collection mandate: any retailer that sells lead batteries must accept used lead batteries of a similar type from consumers for recycling. This means that consumers are provided recycling opportunities at the same locations where they purchase new batteries. BCI believes the collection networks for all battery chemistries should adopt a similar framework: dealers and retailers of a particular chemistry and type of battery should accept used batteries of a similar type at no cost to the consumer.

However, the requirement to accept used batteries is best limited to batteries of a similar type. This is because retailers or dealers of one size or chemistry of battery will likely be unprepared or incapable of properly handling and storing other types of batteries. For example, retailers of SLI-sized automotive batteries will be unprepared to accept forklift or EV drive-train batteries. Thus, retailers and dealers should be not be required to accept used batteries of types or sizes unrelated to what they typically sell.

Similarly, dealers of large format industrial batteries, typically a business-to-business relationship, must also be required to accept used batteries back from their direct customers or arrange for their return and provide customers with proper information on recycling. But those relationships can involve long-term business arrangements and/or service contracts, so it is not appropriate to mandate that industrial batteries be taken back at no cost, thus disrupting existing, long term arrangements. For large-format and industrial batteries and large-scale deployments, the decision on whether to charge disposal or decommissioning fees should be the responsibility of the parties to the business arrangement.

B. Collection Should be Free to Retail Consumers at the End of Life

BCI's experience has shown that consumer recycling networks should work to eliminate barriers and disincentives to consumers returning used batteries. Disposal fees charged to consumers at the end-of-life are a barrier or disincentive to collection and should be avoided. In BCI's experience, ensuring collection of used batteries is free from the consumer's perspective has been important to encouraging the return of used lead batteries.

However, BCI recognizes that lead batteries present the currently unique advantage of retaining sufficient residual value in the recoverable elements of the battery to provide an economic incentive to manufacturers and recyclers to collect used batteries from consumers. At least at present, the same is not the case for most other battery chemistries using today's recycling technologies – instead, recycling service providers currently must charge a disposal or processing fee to maintain a viable business model.

BCI is hopeful that one or more of the promising recycling innovations in development will enable more economical recycling for lithium and other chemistries. Whether a truly no-fee model will be viable for other battery chemistries will depend on whether the recycling of those batteries can be developed to the point of being a profitable enterprise.

However, to the extent recycling or disposal fees must be charged to sustain a particular recycling system, those fees or taxes should not be imposed on consumers at the end-of-life. [21]

C. EPA Should Carefully Consider Requirements for the Handling and Transportation of Damaged Batteries

Damaged batteries can pose significant additional handling, storage, and transportation hazards and costs, and many collectors may be incapable currently of properly handling those batteries. Further, the handling requirements, transportation protocols, and safety hazards, posed by damaged batteries will vary considerably depending on the type, size, and chemistry of the battery.

Transportation of used lead batteries in the U.S. is regulated under Department of Transportation (DOT) rules. These regulations, codified at 49 C.F.R. § 173.159, dictate packaging, storage, and shipping restrictions to ensure the safe transportation of the batteries to and/or from any point in the U.S. For instance, batteries must be braced during shipment to prevent shifting and damaged or leaking batteries must be properly containerized.

One of the key requirements of the DOT provisions for lead batteries is that no hazardous materials other than lead batteries and electrolyte may be shipped in the same vehicle. This means that shipping used lithium ion batteries on the same vehicle would require additional hazardous material transportation requirements and expense. Industry has been evaluating and seeking methods for safely co-transporting used lithium ion batteries, but acceptable solutions have not yet been identified.

DOT also requires workers who package, label or prepare batteries for shipment be properly trained if they are processing non-exempt materials. Furthermore, BCI has developed voluntary training brochures and videos for its members and the public to learn about the proper ways to package and ship used lead batteries to meet and exceed DOT regulations.[22] These training efforts ensure the safe transportation of new and used battery shipments on roadways in the U.S.

When considering recycling network guidelines, EPA must consider how best to deal with existing and anticipated transportation regulatory requirements, how to potentially better facilitate used battery shipments, and prioritize avoiding interruptions of existing transportation system. EPA should consult with DOT and industry stakeholders throughout this process.

[21] As previously noted, consumer financial disincentives may not be applicable in commercial or business-to-business settings. The decision on whether to charge disposal or decommissioning fees in those situations should be the responsibility of the parties to the business arrangement.

[22] https://batterycouncil.org/page/Transportation

V. Conclusion

BCI supports strengthening used battery collection networks and encouraging battery recycling. There is no one-size-fits-all solution, but consistent labeling and wide-spread collection at no cost to consumers will be foundational to future successful recycling efforts.

We also strongly believe it would be counterproductive for EPA to adopt guidelines or requirements that might interrupt the existing, extremely successful, and industry-funded retail collection network for lead batteries.

Sincerely,

Roger Miksad / NI

Roger Miksad

Executive Vice President & General Counsel