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**SENATE COMMITTEE ON ENVIRONMENTAL QUALITY**

**Senator Allen, Chair**

**2021 - 2022 Regular**

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**Bill No:** SB 1153  
**Author:** Archuleta  
**Version:** 2/16/2022  
**Urgency:** No  
**Consultant:** Gabrielle Meindl

**Hearing Date:** 4/20/2022  
**Fiscal:** Yes

**SUBJECT:** Rechargeable Battery Recycling Act of 2006: data reporting

**DIGEST:** Requires a battery handling or battery recycling facility to provide specified data to the Department of Toxic Substances Control (DTSC) related to the rechargeable batteries returned for recycling during the prior year.

**ANALYSIS:**

Existing law:

- 1) Establishes the Integrated Waste Management Act and requires the Department of Resources Recycling and Recovery (CalRecycle) to oversee the management of solid waste (PRC §§40050 et seq.)
- 2) Establishes the Rechargeable Battery Recycling Act, which requires every retailer to have a system in place, on or before July 1, 2006, for the acceptance and collection of used rechargeable batteries for reuse, recycling, or proper disposal. (Public Resources Code (PRC) §§42451-42456)
- 3) Establishes the Hazardous Waste Control Law and requires DTSC to oversee the management of hazardous waste. (Heath & Safety Code (HSC) §§25100 et seq.)
- 4) Requires DTSC, by July 1 of each year, to survey, as specified, battery handling or battery recycling facilities, and to post on its internet website the estimated amount, by weight, of each type of rechargeable batteries returned for recycling during the prior year. (PRC § 42456)

This bill requires a battery handling or battery recycling facility to provide the estimated amount, by weight, of each type of rechargeable batteries returned for recycling during the prior year to DTSC in the form and on or before the date requested by the department.

**Background**

- 1) *Universal Wastes and its management.* Hazardous waste is a waste with properties that make it potentially dangerous or harmful to human health or the environment. To be considered a hazardous waste, it must appear on one of the four RCRA hazardous waste lists or exhibit one of the four characteristics of a hazardous waste – ignitability, corrosivity, reactivity, or toxicity. Under current law, it is illegal to dispose of hazardous waste in the garbage, down storm drains, or onto the ground.

Universal wastes, which are regulated by DTSC, are hazardous wastes that are widely produced by households and many different types of businesses. It comes primarily from consumer products containing mercury, lead, cadmium and other substances that are hazardous to human health and the environment.

- 2) *Battery regulation.* Most batteries, regardless of size, are considered universal waste or hazardous waste when they are discarded and cannot be disposed of in the trash or household recycling collection bins (blue bins). These include single use alkaline and lithium batteries and rechargeable lithium metal, nickel cadmium, and nickel metal hydride batteries of various sizes. They contain a corrosive chemical that can cause burns as well as toxic heavy metals like cadmium. These metals also make batteries a potentially valuable source of recyclable materials. Products that contain batteries have become common in every aspect of our lives; batteries can be found in phones, wearable technology such as smart watches, airpods, greeting cards, e-cigarette pens, and children's toys just to name a few.

If batteries end up in the trash or a recycling bin, owners/operators of solid waste transfer stations, municipal landfills, and recycling centers who discover batteries in the waste or recyclable materials are required to remove and manage the batteries separately. The facility that removes the batteries from the municipal solid waste stream or recyclable materials legally becomes the generator of the hazardous waste batteries and must comply with the state's hazardous waste management regulations. Facilities that do not properly manage hazardous waste may be subject to regulatory enforcement and may be liable for monetary penalties.

Depending on the type of battery and applicable management requirements, batteries must be sent to a facility permitted to accept hazardous waste batteries, universal wastes, or spent lead acid batteries. Only facilities that have a DTSC permit or other type of authorization to treat, store, or dispose of hazardous wastes may accept hazardous waste. Facilities that do not have a DTSC permit may accept and store universal waste batteries and spent lead

acid batteries if they operate according to the regulations specifically tailored for those types of batteries.

- 3) *Batteries in the trash.* According to CalRecycle's 2018 Waste Characterization Study, published May 2020, batteries, which include car, flashlight, small appliance, watch, and hearing aid batteries, represented 8,892 tons (0.0002%) of California's overall disposed waste stream. This figure does not distinguish between single-use and reusable batteries. As noted above, no batteries should be entering the state's landfills.

According to Call2Recycle, a national organization that runs a battery stewardship and recycling program, California consumes 64 million Lithium-ion batteries every year. Of this 64 million, it is estimated that between 75 – 92% of these batteries are improperly disposed of. With the number of Lithium-ion batteries and products expected to double in the next seven years due to advancements in technology, the quantity of Lithium-ion batteries and products entering the waste stream will only increase.

- 4) *Battery dangers.* Lithium-ion batteries are widely used in electronics such as laptops, smart phones, digital cameras, children's toys, and vape pens. These batteries can explode and ignite whatever is nearby when bent or crushed. The batteries pose a risk throughout their life.

While some products enable consumers to remove the battery prior to disposal, many make them extremely difficult to remove. Additionally, safer product design may not be compatible with the sleek, thin shape that consumers have come to expect and prefer in electronic devices. The shielding required to make the batteries safer adds bulk.

Lithium-ion batteries are quite powerful and spark thermal events, or fires, when they are damaged. The batteries damage easily under pressure, such as squeezing or puncturing, or with friction. The frequent jostling, crushing and shredding in waste and recycling streams can cause battery smoking or combustion of adjacent materials in a collection truck, at Materials Recovery Facilities (MRFs), in scrapyards or at transfer stations.

“They're the toughest batteries for MRFs and haulers because they're high energy density, small and difficult to identify,” said Carl Smith, CEO and president of nonprofit Call2Recycle. “The big thing we worry about is the puncture and shredding that takes place in waste. That can cause ignition.”

- 5) *California Rechargeable Battery Recycling Act*. Most portable electronic devices use rechargeable batteries and millions of rechargeable batteries are sold in California each year. In 2005, to help promote proper disposal of rechargeable batteries by the public, the Legislature passed and the Governor signed the California Rechargeable Battery Recycling Act (Act), which requires retailers to have a mechanism to accept all rechargeable batteries from consumers for recycling. To track how effective this program is, the law requires DTSC to survey battery handling and/or recycling facilities and post on its web site, by July 1 of each year, the estimated amount, by weight, of each type of rechargeable battery returned for recycling in California during the previous calendar year. SB 1153 would require battery handling and recycling facilities to submit this data to DTSC in the form and by the date requested by the department.

According to DTSC's website, the following are approximate quantities of rechargeable batteries collected for recycling in California in 2020:

- 408,823 pounds of lithium ion batteries
- 252,969 pounds of nickel cadmium batteries
- 77,766 pounds of nickel metal hydride batteries
- 4.8 million pounds of small sealed lead acid batteries

Accurately estimating the amount of rechargeable batteries collected for recycling in California can be difficult due to the following reasons:

- DTSC does not have a complete list of all in-state and out-of-state battery handlers and recyclers handling California generated rechargeable batteries;
- Some battery handlers and recyclers do not track the state from which batteries are collected;
- Batteries contained within electronic devices that are recycled (e.g., cell phones and laptop computers) are not counted separately but may represent a significant portion of the total quantity;
- There may be duplicate data as some battery handlers collect batteries from other collection points;
- California law does not require battery handlers or recyclers to report the number or weight of batteries collected for recycling.

## Comments

- 1) *Purpose of Bill*. According to the author, “There is no requirement under current law for battery handlers to respond to the Department of Toxic

Substances Control when they are surveyed for battery handling information. This has led to low survey return rates, which is a problem because these surveys provide valuable information to the Department. SB 1153 addresses this problem by requiring a battery handling or battery recycling facility to provide battery-recycling data to the Department of Toxic Substances Control in the form requested by the department, and on or before the date requested by the department.”

### **Related/Prior Legislation**

SB 1215 (Newman) enacts the Battery and Battery-Embedded Product Recycling and Fire Risk Reduction Act of 2022, which would prohibit a person from knowingly disposing of a lithium-ion battery in a container or receptacle that is intended for the collection of solid waste or recyclable materials, unless the container or receptacle is designated for the collection of batteries for recycling, as provided. This bill is pending before this committee.

SB 289 (Newman, 2021) would have enacted the Battery and Battery-Embedded Product Recycling and Fire Risk Reduction Act of 2021, which would require the producers of batteries and battery-embedded products to establish a stewardship program for those products, with full implementation on or before June 30, 2025. This bill died in the Senate Appropriations committee.

SB 244 (Archuleta, 2021) would have required CalRecycle, in consultation with DTSC, to develop guidance for the proper handling and disposal of lithium-ion batteries and requires the Department of Forestry and Fire Protection to develop protocols and training for the detection, safe-handling, and suppression of fires started from discarded lithium-ion batteries in the waste-handling system to be adopted by solid waste enterprises. This bill was vetoed by the Governor.

**SOURCE:** Author

**SUPPORT:**

None received

**OPPOSITION:**

None received

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