

*Eco-Tip for 4-14-19*

## **Batteries not Included in Your Garbage Can or Recycling Cart**

By David Goldstein, Ventura County Public Works Agency, IWMD

Lithium-based batteries are turning an important environmental issue into an urgent one. Proper management of discarded batteries has always been important to conserve resources and avoid toxic contamination, but now improper disposal of lithium batteries is causing fires.

BatteryUniversity.com, an informational website sponsored by a battery manufacturer, offers reassurances regarding the lithium ion battery fires in Galaxy Note 7 cell phones, some types of hoverboards, and Boeing 787 Dreamliners. These were cases of defective batteries and have been corrected, they say, claiming their own batteries have a failure rate lower than one in a million. Nevertheless, the company warns any battery can fail due to “mechanical abuse.”

Mechanical abuse is exactly what happens when batteries are disposed in curbside trash or recycling bins instead of at a household hazardous waste collection event, in a specially designed battery mail-back container, or at one of the private collection centers legally mandated at major battery retailers.

Call2Recycle, a battery industry sponsored non-profit organization helping companies stay compliant with recycling requirements, acknowledges on their web site “a surge in fires at recycling and waste facilities across the country.” In response, their message is “Avoid the spark. Be battery safety smart.”

Part of being battery smart is knowing what to do in the very unlikely case a battery overheats, hisses, or bulges. Battery University advises one should disconnect the battery from the charge source and move it to a non-combustible surface, preferably outdoors, for at least six hours. In the even more unlikely event of fire, use a fire extinguisher, then be aware additional parts of the battery may later burn. A bad battery is best kept in sand, according to a PowerPoint presentation by Carl Smith, President of Call2Recycle Inc, on the web site of the California Department of Resources Recycling and Recovery (CalRecycle)

A more practical element of being “battery smart” is knowing what to do with used batteries. At least with lithium batteries you are storing for recycling, tape the positive terminals. Don Sheppard, who manages Ventura County’s Pollution Prevention Center drop-off site for household hazardous waste, reports he increasingly sees customers who

have laid out their batteries on packing tape and then doubled over the tape before transporting the batteries to a collection event.

Do not remove non-removable batteries from devices. Instead of taping batteries from devices, place entire the device in a clear plastic bag. Lithium batteries come in many sizes and may be marked with a variety of names, including: lithium cells, lithium ion, CR####, Li-ion, LiPo, or simply “rechargeable.”

Last Tuesday, the California Assembly Committee on Environmental Safety and Toxic Materials held a hearing on the topic of batteries, focusing on options to reduce the risk of fire and measures to encourage proper handling of lithium containing batteries. One proposal, being promoted by the advocacy groups California Product Stewardship Council and Californians Against Waste, would make the battery industry responsible to fund, operate, and promote a convenient collection and management program for battery recycling.

Large retailers are currently required to take back rechargeable batteries for recycling, and some voluntarily also accept other types of batteries. Companies wanting to provide a convenience for their employees or customers may purchase a battery collection container, place it in a breakroom or an area accessible to customers, and pay shipping and recycling costs when it fills. If it is used for just rechargeable batteries, it can be obtained free from Call2Recycle.com, but if it is to be used for all batteries, for example if it is used for public collection at a church, synagogue, or other civic-minded organization’s drop-off site, there is a charge. The cost is around \$70, including shipping and recycling, and each container holds about 40 pounds of batteries. You can order a container that includes prepaid shipping from companies such as Big Green Box at (877) 461-2345 or Battery Solutions at (800) 852-8127.

Two recycling facilities and six household hazardous waste collection facilities in Ventura County accept batteries, as well as other items. However, each facility serves limited geographical areas, and periodic collection events at most locations require appointments.

Residents may bring all types of batteries to city or county-sponsored household hazardous waste collection sites or events at no charge. However, public agencies typically pay contractors over \$50 per vehicle to unload, safely handle, pack, ship, and recycle materials brought to these events. Therefore, unless you need to attend one of these events to recycle other household hazardous waste, it saves cities and counties money if you use a different option for recycling your batteries.

The best option, however, is to create less battery waste in the first place. Recharge rather than disposing when possible. Energy storage devices have been dangerous since the time of steam engine explosions in the 1800s. As battery power increases and the size of batteries shrinks, fire becomes more of a risk and proper management becomes more important.

*On the web:*

[www.call2recycle.org](http://www.call2recycle.org)

[www.batteryrecycling.com](http://www.batteryrecycling.com)

[www.biggreenbox.com](http://www.biggreenbox.com)

[https://batteryuniversity.com/learn/article/safety\\_concerns\\_with\\_li\\_ion](https://batteryuniversity.com/learn/article/safety_concerns_with_li_ion)