Seattle Fire Department sfd CAM Client Assistance Memo 1200
Seattle Permits
—part of a multi-departmental series on City services & permitting

Lithium-Ion Battery Safety for Personal Mobility Devices and Other Personal Devices

February 2024

Lithium-ion batteries provide a good source of clean power and they are being used in more devices every year. Lithium-ion batteries are found in smart phones, laptops, scooters, e-bikes, e-cigarettes, toys, and electric vehicles. In rare cases, the batteries fail, and this condition can quickly lead to a fire. The Seattle Fire Department responds to roughly one fire a week related to Lithium-ion batteries.

This Client Assistance Memorandum provides safety tips for purchasing, using and storing Lithium-ion batteries as well as information about how to safely dispose of them.

Purchasing and Using Devices

Purchase and use devices that are "listed" by a qualified testing laboratory. This means that the battery has passed a rigorous safety test. Look for "UL-Listed" on the battery.

Only use the battery that is designed for the device. Do not swap batteries.

Put batteries in the right way and always follow the manufacturer's instructions.

Charging and Storing Devices

Only use the charging cord that came with the device. An incompatible charging cable may continue to charge the battery to the point of overheating, which can cause a fire. Do not leave the device plugged in once fully charged.

Do not charge a device under your pillow, on your bed, or on a couch. A fire that starts where you are sleeping can be more likely to cause injury or death.

Do not charge your e-bikes or other batteries in your bedroom or by your front door or other exits.

Do not leave batteries in the sunshine or hot vehicles.

Keep batteries at room temperature.

Batteries that are damaged are more likely to fail and should not be used.

Signs of a Problem

Lithium-ion batteries show signs that they need to be replaced if they get hot, expand, or take longer than usual to charge. They may also have an unusual odor or change in color or make odd noises. Stop using the battery if you notice these problems and take steps to safely dispose of it (see section below). Do not throw Lithium-ion batteries away in household garbage.

Right before failing, a battery will make a popping noise and then a hiss during which gas is released. If you notice these signs, quickly move away from the battery to a safe location, notify others around you to leave, and call 9-1-1 immediately.

Safely Recycling Old and Damaged Batteries

Never put lithium-ion batteries in your regular trash due to the risk of fire. To recycle most batteries, Seattle residents may arrange a special pick up at your home ($5 charge), or bring them to a transfer station or household hazardous waste site for free. This includes AAA/AA/C/D; button batteries; household rechargeables; and batteries for laptops, personal electronics, cordless drills and tools, and e-bikes: https://atyourservice.seattle.gov/2021/09/30/dead-batteries-recycle-them-with-spu/. There are also no-cost options through Call2Recycle to bring batteries back to certain stores, such as e-bike retailers.

Damaged, Defective, and Recalled (DDR) Batteries

Damaged batteries cannot be recycled and pose a greater risk of fire than batteries that are undamaged. Seattle residents can bring damaged batteries up to 25 lbs to the North and South Hazardous Waste Facilities. More options, including options for businesses, are available on the Damaged, Defective, and Recalled Batteries page on Call2Recycle.org.